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## Electoral Institutions, Party Strategies, Candidate Attributes, and the Incumbency Advantage

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*Electoral Institutions, Party Strategies,  
Candidate Attributes, and the Incumbency  
Advantage*

A dissertation presented by  
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to  
the Department of Government

in partial fulfillment of the requirements  
for the degree of  
Doctor of Philosophy  
in the subject of Political Science

Harvard University  
Cambridge, Massachusetts  
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*Electoral Institutions, Party Strategies, Candidate Attributes, and the Incumbency Advantage*

Abstract

In developed democracies, incumbents are consistently found to have an electoral advantage over their challengers. The normative implications of this phenomenon depend on its sources. Despite a large existing literature, there is little consensus on what the sources are. In this three-paper dissertation, I find that both electoral institutions and the parties behind the incumbents appear to have a larger role than the literature has given them credit for, and that in the U.S. context, between 30 and 40 percent of the incumbents' advantage is driven by their "scaring off" serious opposition.

In "Voting for Parties or for Candidates: Do Electoral Institutions Make a Difference?" I analyze the Comparative Study of Electoral Systems (CSES) data to put the U.S. case in a comparative context and explore the impact of electoral institutions on voting behavior. My findings suggest that electoral institutions have a substantial effect on the degree to which politics is party-oriented or personalistic, and thus, they might in turn have an impact on the level of incumbency advantage in the elections.

In "How Parties Help Their Incumbents Win: Evidence from Spain," I explore a novel dataset of elections to the Spanish Senate, where the commonly studied sources of incumbency advantage are unlikely to be present and where we can use a precise measure of incumbency advantage. I find that the main source of the senator's advantage comes from their placement on the ballot by their party leaders.

In "Challenger Quality and the Incumbency Advantage," my co-authors and I provide estimates of the incumbency advantage and the effect of previous office-holding experience that account for the strategic entry in the race by high-quality challengers. For that purpose, we use term limits as an instrument for challenger quality. Studying U.S. state legislatures, we find that between 30 and 40 percent of the incumbency advantage in state legislative races is the result of scaring off experienced challengers.

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Pamela Ban and James M. Snyder, Jr. contributed to Chapter 4.

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To Gali, who believed in me.

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# 1

## INTRODUCTION

This dissertation, “Electoral Institutions, Party Strategies, Candidate Attributes, and the Incumbency Advantage,” consists of three papers exploring the potential causes of the electoral advantage incumbents enjoy over their challengers and how the nature and extent of this advantage vary depending on electoral institutions.

In developed democracies, incumbents are consistently found to have an electoral advantage over their challengers. For example, in the 1990s the mere fact of being the incumbent in the race conferred on members of the U.S. Congress about 8 percentage points of the vote (Ansolabehere and Snyder, 2002). The normative ramifications of this phenomenon depend on its sources. If incumbents fare better than their challengers at the polls simply because they are better candidates, we would perceive their advantage as a sign of a healthy democracy. If the electoral advantage of incumbents comes from their exploiting office resources to deter high-quality challengers, however, then the incumbents’ advantage would diminish the accountability and competitiveness of the elections and have negative consequences for representation. Despite a large existing literature, there is little consensus on what the sources are.

Ever since Erikson (1971, 1972) and Mayhew (1974) noted the growing margins by which incumbents were being reelected in the mid 1960s, researchers have paid considerable attention to the causes of the incumbency advantage in U.S. congressional elections. Scholars have investigated whether incumbents generate such advantage by ideologically aligning themselves to their constituents (Mayhew, 1974; Serra and Moon, 1994); bringing pork to the district (Mayhew, 1974; Fiorina, 1980; Feldman and Jondrow, 1984; Stein and Bickers, 1994, 1997; Alvarez and Saving, 1997; Levitt and Snyder, 1997); focusing on constituency service (Fiorina, 1977; Johannes and McAdams,

1981; Fiorina, 1981; Yiannakis, 1981; Johannes, 1984; Cain, Ferejohn and Fiorina, 1987; Serra and Cover, 1992; Serra, 1994; Campbell, 1983; Parker and Parker, 1985); raising high levels of campaign funds (Glantz, Abramowitz and Burkart, 1976; Jacobson, 1978, 1980; Abramowitz, 1991); scaring off high-quality challengers (Levitt and Wolfram, 1997; Canon, 1990; Cox and Katz, 1996); and engaging in activities that might increase their name recognition (Stokes and Miller, 1962; Mayhew, 1974; Abramowitz, 1975; Ferejohn, 1977; Romero, 1996), among others. The few studies in other developed countries seem to have followed the lead of the U.S. literature and examine the same type of activities incumbents may engage in to accrue such an advantage.<sup>1</sup> After decades of research on U.S. and non-U.S. elections, however, we have yet to fully understand where the incumbents' electoral advantage comes from.

To further complicate matters, Ansolabehere and Snyder (2002) examined six decades of data on congressional, senatorial, and statewide elections and found similar countrywide trends in incumbency advantage, suggesting that such phenomenon is neither unique to Congress nor unique to legislatures per se. To better disentangle the effects of the factors that might be clustered in the U.S., I decided to study the same phenomenon in other countries.

In this dissertation, I find that both electoral institutions and the parties behind the incumbents appear to have a larger role than the literature has given them credit for, and that in the U.S. context, between 30 and 40 percent of the incumbents' advantage is driven by them "scaring off" serious opposition.

In the first paper of the dissertation, "Voting for Parties or for Candidates: Do Electoral Institutions Make a Difference?" I analyze the Comparative Study of Electoral Systems (CSES) data to put the U.S. case in a comparative context and explore the impact of electoral institutions on voting behavior. In particular, I analyze the elections in countries with mixed electoral systems, where two electoral systems coexist, and thus, where we can clearly observe the effect of electoral institutions on the vote choices of the electorate since everything else remains constant.

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<sup>1</sup>For example, analyzing British parliamentary elections, Gaines (1998) finds that the recent focus of MPs on constituency service has not resulted in a higher level of incumbency advantage. Migueis (2010) finds that the financial transfers from the Portuguese central government to its municipalities are not the main driver of incumbency advantage in their municipal elections. Hirano (2007) examines office-holding benefits and candidate quality as explanations for the success of LDP candidates in Japanese lower house elections. Heintzman (1991) finds that the advantage of the incumbents in the 1988 Canadian elections cannot be explained by their higher levels of campaign funds.

Analyzing the elections in the late nineties in Germany, Hungary, New Zealand, and Japan, I find that, as compared to multi-member district PR elections with closed party lists, single-member district FPTP elections (a) increase the probability to vote for a party other than one's own in all countries other than in Germany (which politics are known for being heavily party-oriented), (b) increase the probability of casting a strategic vote in all countries other than in Hungary (which was a relatively new democracy at the time), and (c) increase the probability of casting a candidate-centered vote in countries that do not link the two electoral tiers together in a system of compensatory seats (i.e, Hungary and Japan), but decrease it in countries where they do link their tiers and, as a result, the distribution of the lower house seats is almost fully determined by the PR vote (i.e. Germany and New Zealand). In some countries, the effects are found to vary depending on (i) the strength of the party attachment, (ii) whether the respondents identified with a minor party in the SMD tier, (iii) whether the respondent identified with one of the minor parties of the PR tier, (iv) the margin of victory in the SMD tier, (v) respondent's ability to recall the names of the SMD candidates, and (vi) respondent's contact with a member of parliament in the last year. Consistent with recent studies, respondents' knowledge of politics is not found to modify the effect that electoral institutions have on voting behavior. As a result, we can agree with Carey and Shugart (1995) and conclude that electoral institutions have a substantial effect on the degree to which politics in the system is party-oriented or personalistic, and thus, they might in turn have an impact on the level of incumbency advantage in the elections. More research is needed, however, to know exactly how and by how much.

In the second paper, "How Parties Help Their Incumbents Win: Evidence from Spain," I identify an under-explored advantage that comes from holding office: having the opportunity to prove loyalty to party leaders and, as a result, gain their support in future elections. In particular, I study elections to the Spanish Senate, where the commonly studied sources of incumbency advantage are unlikely to be present and where we can use a precise measure of incumbency advantage. I gather data on every election to the Spanish Senate from 1977 to 2008 and exploit the multimember district system to estimate senators' advantage over their co-partisan, non-incumbent challengers. I find a small but significant incumbency advantage, estimated to increase the probability of all incumbents being reelected by almost 25 percentage points but that of vulnerable incumbents by more than 50 percentage points. I also find that the main source of such advantage comes from

the behavior of the parties, which help their more vulnerable senators get reelected by ensuring that they be placed first on the ballot. Since during the elections studied the law stipulated that candidates be ordered on the ballot alphabetically, in order to ensure that incumbents be placed first, parties had to nominate other candidates with last names further down the alphabet.

The findings of this paper are relevant beyond the elections to the Spanish Senate, which have relatively low stakes given the limited power of the Spanish upper house of parliament. Although the specifics might vary by electoral system, one can only imagine how much more prominent this type of strategic behavior by the parties may be in higher-stakes elections, especially those where parties are powerful. In other contexts, parties might help their vulnerable incumbents get reelected by supplying organizational support, helping with fundraising, coordinating public endorsements, discouraging talented within-party challengers, providing key promotions, offering high-profile appointments, etc. In the U.S. context, for example, using a regression-discontinuity design Lee (2008) found that, on average, candidates from the incumbent party perform better at the polls than those from other parties, regardless of incumbency status of the candidates themselves. This suggests that the parties in power, and not just the incumbents, also have a way of affecting the electoral outcome. More research is needed to understand the impact of party actions on incumbency advantage in developed democracies other than Spain.

In the third paper, “Challenger Quality and the Incumbency Advantage,” my co-authors and I provide estimates of the incumbency advantage and the effect of previous office-holding experience that account for the strategic entry in the race by high-quality challengers. To do so, we use term limits as an instrument for challenger quality. Politicians who are term-limited cannot exercise one of their most popular options—running for the office they currently hold—and must either run for a different office or temporarily retire from politics. As a result, many term-limited candidates run for another office when they would not otherwise. This yields an exogenous source of variation in the presence of high-quality challengers, and therefore a plausible instrument. Studying U.S. state legislatures, we find strong evidence of strategic behavior by experienced challengers. However, we also find that such behavior does not appear to significantly bias the estimated effect of challenger experience or the estimated incumbency advantage. Using our improved estimates, we find that between 30 and 40 percent of the incumbency advantage in state legislative races is the result of scaring off experienced challengers.

# 2

## VOTING FOR PARTIES OR FOR CANDIDATES: DO ELECTORAL INSTITUTIONS MAKE A DIFFERENCE?

Elections in the U.S. have long been considered unique, with its candidate-centered politics and high levels of incumbency advantage. In this paper, I aim to put the U.S. case in a comparative context and explore the effect that electoral institutions have on the voting behavior of the electorate. In particular, I study whether electoral systems affect the likelihood of party defection in lower house elections, a phenomenon defined as voting for a party other than one's own. In addition, to the extent possible, I try to distinguish whether voters are casting a ballot for a different party for strategic purposes – voting for a party that has higher chances of winning than their preferred one – or to support a particular candidate due to the candidate's personal attributes, such as incumbency status.

When looking at the 36 countries included in the Comparative Study of Electoral Systems (CSES) dataset, I find that the U.S. is not exceptional when it comes to party defection. Close to 18 percent of the respondents in the U.S. claimed to have voted in 1996 for a congressman from a different party than the one they identified as their own, a number that falls midway within the distribution of the sample of countries analyzed.<sup>1</sup> However, this list includes countries with very different type of electoral systems. If we only look at elections in which voters cast votes for candidates instead of parties, the U.S. ranks close to the bottom.

Broad analyses of the data appear inconclusive on whether electoral systems have an effect on the level of party defection. On average, a vote casted in single-member district elections has a 25

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<sup>1</sup>For details, see Table A.1. in the Appendix.



percent probability of being for a party other than the respondent’s own. Multiple-member district elections have a probability of party defection twelve percentage points smaller. Proportional representation elections with open party lists have a probability of party defection four percentage points higher than that of single-member district elections, on average. Meanwhile, proportional representation elections with closed party lists have a probability of party defection four percentage points lower than that of single member district elections, on average. With clustered standard errors at the country and individual level, however, the only statistically significant differences are those involving multi-member district elections.<sup>2</sup>

This type of comparison is not very informative since there are many differences among these countries other than their electoral systems. The observed differences in party defection might be due to differences in the institutionalization of the parties, for example. Some countries, however, have mixed electoral systems, that is two electoral systems working alongside each other. In these cases, we can observe how the different electoral systems have an effect on voting behavior, while controlling for everything else (e.g., country characteristics, individual preferences, etc.).

When focusing on elections in the late nineties in Germany, Hungary, New Zealand, and Japan – the four countries in the CSES dataset where two electoral systems coexist – I find that, as compared to multi-member district PR elections, single-member district FPTP elections (a) increase the probability to vote for a party other than one’s own in all countries other than in Germany (which politics are known for being heavily party-oriented), (b) increase the probability of casting a strategic vote in all countries other than in Hungary (which was a relatively new democracy at the time), and (c) increase the probability of casting a candidate-centered vote in countries that do not link the two electoral tiers together in a system of compensatory seats (i.e., Hungary and Japan), but decrease it in countries where they do linked their tiers and, as a result, the distribution of the lower house seats is almost fully determined by the PR vote (i.e., Germany and New Zealand).<sup>3</sup>

In some countries, the effects are found to vary in the expected direction depending on (i) the strength of the party attachment, (ii) whether the respondents identified with a minor party in

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<sup>2</sup>I used the wild cluster bootstrap t-procedure to estimate the two-way clustered standard errors, which are more suitable for analyses with small number of clusters Cameron, Gelbach and Miller (2008) (STATA command *cgmwildboot*, written by Judson Caskey).

<sup>3</sup>Given data limitations, I am probably underestimating the amount of candidate-centered voting existent in the elections, therefore, caution should be used in drawing strong conclusions from this part of the analysis.

the SMD tier, (iii) whether the respondent identified with one of the minor parties of the PR tier, (iv) the margin of victory in the SMD tier, (v) respondent's ability to recall the names of the SMD candidates, and (vi) respondent's contact with a member of parliament in the last year. Consistent with recent studies, respondents' knowledge of politics is not found to modify the effect that electoral institutions have on voting behavior.

## 2.1 LITERATURE REVIEW

In legislative elections that, in turn, determine the head of government, there are three main reasons for which voters might choose to cast a vote for a party other than their preferred one. First, they might want to influence the policy outcome of the election and make their vote "count" by, for example, voting for a party that has higher chances to win than their own. This is what the literature calls strategic voting (Cain, 1978; Franklin, Niemi and Whitten, 1994; Fieldhouse, Pattie and Johnston, 1996; Cox, 1997; Alvarez and Nagler, 2000; Blais, Nadeau, Gidengil and Nevitte, 2001; Aldrich, Blais and Indridason, 2005; Alvarez, Boehmke and Nagler, 2006; Blais and Gschwend, 2010).<sup>4</sup> Second, they might want to place a vote for a particular candidate based on the candidate's personal attributes and such a candidate happens to be affiliated with another party. This is what scholars have identified as the personal vote and incumbency advantage is part of it (Cain, Ferejohn and Fiorina, 1987; Blais, Gidengil, Dobrzynska, Nevitte and Nadeau, 2003; Marsh, 2007; Marsh, Sinnott, Garry and Kennedy, 2008). Third, they might want to express their preference for a specific party leader as head of government based on the personal characteristics of the leader and despite the leader's affiliation with a different party than their own (Bean and Mughan, 1989; Macdonald, Rabinowitz and Listhaug, 1995; Aardal and Oscarsson, 2000; Bartle and Crewe, 2002; Rosema, 2004; Poguntke and Webb, 2007; Aarts, Blais and Schmitt, 2013).<sup>5</sup> Arguably, this is also a kind of personal vote.

There are many factors that might affect the level of strategic and candidate-centered voting that takes place in an election. Some of them relate to the attributes of the voters themselves while others have to do with the characteristics of the electoral system. When it comes to voters'

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<sup>4</sup>Also known as tactical, sophisticated, or insincere voting.

<sup>5</sup>This phenomenon is also known as the leadership effects and the 'presidentialization' or personalization of parliamentary politics.

qualities, for example, scholars have found that weak partisans and supporters of minor parties are more likely to vote strategically (Karp, Vowles, Banducci and Donovan, 2002; Gschwend, 2007; Blais and Gschwend, 2010), while their level of political knowledge does not appear to have a clear effect (Duch and Palmer, 2002; Karp et al., 2002; Gschwend, 2007; Blais and Gschwend, 2010). Similarly, weak partisans, voters who can recall the candidates' names, who have had contact with their legislator, or who are politically well-informed have been found to be more likely to cast a personal vote (Wattenberg, 1998; Dalton, 2000). The main concern of this paper, however, is with the institutional factors.

The literature on strategic voting behavior initially focused on its incidence in single-member district elections (Ludwin, 1978; Hoffman, 1982; Dummett, 1984; Palfrey, 1984; Gutowski and Georges, 1993; Cox, 1994, 1997). Some scholars found, for example, that voters' likelihood to cast a strategic vote in single-member district FPTP elections increases as the race becomes more competitive (Bawn, 1999; Reed, 1999; Moser and Scheiner, 2005). Up until recently, the conventional wisdom was that strategic voting only made sense in single-member first-past-the-post systems. The logic laid-out by Duverger (1959) was that in winner-take-all contexts, voters would avoid "wasting" their vote on contenders that were not likely to win and would choose to vote for a less-preferred, but more competitive option. In multi-member proportional representation systems, however, as votes translate into seats more directly, voters would not have any incentives to vote insincerely. Additionally, as PR systems tend to have more parties, voters might have an easier time finding a party that is both competitive and of their liking, thus, limiting the odds for strategic voting. This logic was so accepted by the literature that some scholars used the PR vote as a proxy for the sincere preferences of voters (Bawn, 1999; Reed, 1999; Moser and Scheiner, 2005).

More recently, however, scholars have found evidence of strategic voting in PR systems, especially in those that award a small number of seats to each district. Indeed, they found a negative relationship between the magnitude of the districts and the level of strategic voting observed in the elections (Leys, 1959; Sartori, 1968; Cox and Shugart, 1996; Cox, 1997; Gschwend, 2009). The smaller the number of seats in the district, the harder it becomes to allocate them proportionally, and, thus, the incentives for strategic voting increase. Furthermore, scholars have found that in PR systems voters might cast a different type of strategic vote, one that is aimed at influencing the composition of the coalition government (Cox and Shugart, 1996; Cox, 1997; Blais et al., 2001;

Gschwend, 2004; Aldrich, Blais and Indridason, 2005; Kedar, 2005; Bargsted and Kedar, 2007; Blais and Gschwend, 2010). For example, voters who support a party expected to win might choose to cast their ballot for their preferred coalition party, especially if this party might be in danger of falling under a minimum vote threshold.<sup>6</sup> In fact, in a comparative study of elections in Britain, Israel, Mexico, the Netherlands, and the United States, Abramson, Aldrich, Blais, Diamond, Diskin, Indridason, Lee and Levine (2010) found similar magnitudes of strategic voting in single-member first-past-the-post elections as in in multi-member PR elections. Given the large number of small parties under PR, they found a greater number of voters supporting minor parties than in FPTP elections, and, thus, a larger set of voters who had incentives to defect from their preferred party. In another comparative study, Blais and Gschwend (2010) found that neither the electoral system nor the number of parties had a direct effect in the amount of strategic voting observed in the lower house elections of 24 countries.

While there is an extensive literature on the effect of electoral institutions on the level of strategic voting, much less attention has been given to how, if at all, electoral systems might affect the level of candidate-centered voting in an election, and by candidate-centered voting I refer to votes cast to express support for particular district candidates or party leaders.

In regards to candidate-centered voting in support of particular candidates, Carey and Shugart (1995) ranked electoral systems based on how much personal-vote seeking behavior their institutional arrangements theoretically encourage from the candidates in the race. According to them, multi-member PR systems with closed party lists are the electoral institutions where personal reputation is least important, and, therefore, where we should expect the least amount of personal-vote seeking behavior. This, they argue, is especially true as the number of seats allocated to each district increases. With the order of the candidates on the ballot fixed, candidates have no incentive to distinguish themselves from their co-partisans, particularly if the number of co-partisans is large. Also, party control over nominations and ballot ordering ensures a high level of party discipline and cohesiveness among candidates. In this type of elections, the institutional arrangements encourage candidates to cultivate a party reputation, instead of a personal one. In single-member

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<sup>6</sup>Scholars have suggested another type of strategic voting in PR elections. Voters might vote for a different party than their own to influence which party will form the official opposition. There is little evidence that this type of strategic voting is substantial, however (Blais et al., 2001).

first-past-the-post systems, however, as voters choose candidates directly, candidates might benefit from having a personal reputation. Candidates might, therefore, try to differentiate themselves from their party and develop a personal following.<sup>7</sup> As a result, then, if candidates' personal-vote seeking behavior translates into higher levels of candidate-centered voting in the election, based on their arguments, we should expect higher levels of candidate-centered voting in single-member FPTP elections than in multi-member PR elections. To my knowledge, however, there has been no empirical testing of this hypothesis to date.

In regards to candidate-centered voting in support of particular party leaders, most of the literature has focused on studying the phenomenon in multi-member PR systems. There have been very few studies that have even acknowledged its potential existence in single-member FPTP elections.<sup>8</sup> The implication seems to be that it is a type of party defection more prevalent in PR elections, where voters are casting votes for parties and therefore where party leader considerations might be more salient. It is worth noting, however, that this type of party defection will only make sense in elections that have an effect on the overall number of seats allotted to each party, and, thus, that have an effect on the determination of the head of government. For example, in mixed electoral systems with linked tiers, where the seats won by a party in the single-member FPTP election tier are subtracted from the seats won by that same party in the multi-member PR election tier, then, voters should not take into consideration their preference of party leader when casting their vote in the single-member FPTP election.

To summarize, based on the literature, the expectations are to find a larger incidence of candidate-centered voting in support of district candidates in single-member FPTP systems, but a larger proportion of candidate-centered voting in support of party leaders in multi-member PR systems. When it comes to strategic voting, however, scholars have yet to come to an agreement. Table 2.1 summarizes the expected effects of both electoral institutions and voter characteristics on the different types of party defection.

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<sup>7</sup>Katz (1986) and Marsh (1985) made similar arguments.

<sup>8</sup>Blais and Gschwend (2010) recognize that this is a type of party defection that may be found in all types of electoral systems but, since their focus is on strategic voting, they eliminate it from their data.

Table 2.1: Expected Effects of Electoral Institutions and Voter Characteristics on the Different Types of Party Defection

Type of Party Defection	Multi-Member PR Systems	Single-Member FPTP Systems <sup>a</sup>
Strategic (Party) Voting	Expectation is not clear	
<i>electoral characteristics:</i>		
- district magnitude	(-) Effect	NA <sup>b</sup>
- margin of victory	NA	(-) Effect
<i>voters' characteristics:</i>		
- strength of party attachment		(-) Effect
- major party supporter		(-) Effect
- political knowledge		No or Small Effect
Candidate-Centered Voting		
(A) Supporting District Candidate	Expectation is <	
<i>electoral characteristics:</i>		
- district magnitude	(-) Effect	NA <sup>b</sup>
<i>voters' characteristics:</i>		
- strength of party attachment		(-) Effect
- recalls candidates' names		(+) Effect
- contact with MP		(+) Effect
- political knowledge		No or Small Effect
(B) Supporting Party Leader	Expectation is >	

Notes: <sup>a</sup> with more than two contenders, <sup>b</sup> district magnitude in single-member districts is always one

## 2.2 DATA AND METHODOLOGY

The CSES provides information on the attitudes and voting behavior of a representative sample of thousands of citizens in 36 countries immediately following one of their lower house elections.<sup>9</sup> To explore how electoral institutions systematically affect voting behavior, I focus on the four countries in the CSES dataset in which two different electoral systems coexist: Germany in 1998, Japan in 1996, Hungary in 1998, and New Zealand in 1996.

In these countries, voters were asked to cast two ballots for the election of the members of the lower house of their legislature, each vote was under a different type of electoral system. They were asked to vote for a closed party list as part of a proportional representation election, and they were

<sup>9</sup>I use the August 2003 version of Module 1.

asked to vote for a candidate either to be chosen by a plurality (in the case of Germany, Japan, and New Zealand) or by the majority (in the case of Hungary). This type of mixed electoral systems allow us, then, to observe the effect of electoral institutions on the likelihood to vote for a different party than one's own, while everything else remains constant.

There are a couple of features of the electoral systems used in these four countries that are important to keep in mind for our purpose. First, in all of them the head of government is influenced by the outcome of the lower house elections.<sup>10</sup> However, some of the mixed electoral systems have their two tiers linked together in a system of compensatory seats. In both Germany and New Zealand, seats won in the single-member district tier are subtracted from the total number of seats won in the PR tier (Moser and Scheiner, 2004). Since in these countries, the distribution of the lower house seats is almost fully determined by the PR vote, so is the choice of head of government. As a consequence, we should assume that there are no party leader effects in the single-member district FPTP elections. Japan does not use a system of compensation, and, although Hungary does, its single-member district tier is not directly linked to its PR tier (Moser and Scheiner, 2004). In these two cases, then, we should allow for party leader effects in the single-member district FPTP elections. Second, some PR systems impose a minimum legal threshold to attain representation. Germany, Hungary, and New Zealand impose a legal threshold of five percent, while Japan does not impose any threshold. As a result, in the PR tier of Germany, Hungary, and New Zealand we might observe some strategic voting aimed at helping minor parties cross the threshold (especially from major party supporters whose party is already expected to win).

The main dependent variables of interest are the amount of party defection observed in each election, and, to the extent that we can gauge it, the amount of strategic (party) voting and of candidate-centered voting that compose it. The measure of party defection is created by comparing the parties respondents claimed to have voted for in each election to their party identification.<sup>11</sup>

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<sup>10</sup>In Germany, the chancellor is determined based on the partisan composition of the Bundestag. In Hungary, the leader of the party with the majority of the votes in the National Assembly gets appointed Prime Minister. In Japan, the Prime Minister is designated by the National Diet from among its members and must enjoy the confidence of the House of Representatives. In New Zealand, the Prime Minister is chosen from amongst the members of the House of Representatives.

<sup>11</sup>To create the party identification measure, I used the respondents' answers to the following questions: "Do you usually think of yourself as close to any particular political party?" "Which one is that?" If more than one was mentioned: "Which party do you feel closest to?" If none were mentioned: "Do you feel yourself a little closer to one

The measure of strategic voting is, in turn, formed by two components: (a) strategic voting for major parties and (b) strategic voting for the threshold party. Strategic voting for major parties captures the number of respondents who voted for competitive parties in the election instead of voting for their own minor party, which had lower chances of winning.<sup>12,13</sup> In the case of multi-member district elections, I consider votes for the major two parties from supporters of any less popular parties to be a strategic vote. In addition, I also consider votes for any party that ended up with at least one seat in parliament from supporters of parties that did not also to be a strategic vote.<sup>14</sup> In the case of single-member district elections, the major parties are considered to be the top two but the vote is only considered to be strategic if the margin of victory of the winner was ten percentage points or less. The assumption is that in non-competitive races, voters knew ahead of time that their vote was not going to make a difference either way, thus, the incentive to vote insincerely vanishes.<sup>15</sup> Strategic voting for the threshold party captures the number of respondents who decided to vote for a party less popular than their own to help a borderline party achieve the minimum five percent of votes required for representation. For this purpose, a borderline party is defined as a party that achieved between three and seven percent of the vote the elections.<sup>16</sup>

The measure of candidate-centered voting is also formed by two components: (a) candidate-center voting for a party leader and (b) candidate-center voting for a candidate. The first measures the amount of party defection that can be explained by the party leader preferences of the respondents. In other words, it measures the number of votes that respondents casted for the party of their

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of the political parties than the others?" "If so, which one?" (In New Zealand this last question was not asked, and, thus, it was not used in the construction of the PID variable).

<sup>12</sup>This is a common measure of strategic voting. For example, Niou (2001) and Abramson et al. (2010) measure strategic voting as vote deviations from minor parties to competitive parties.

<sup>13</sup>As is convention in the literature, the ranking of the parties is based on the electoral outcomes (i.e., it assumes that respondents' expectations about the viability of the parties before the elections were right).

<sup>14</sup>Gschwend (2009) uses a similar measurement.

<sup>15</sup>Similarly, I assume no strategic voting in single-member districts with only two contenders (of which there are only a few cases in Japan).

<sup>16</sup>As Japanese elections do not impose a legal threshold, I assume that Japan does not have this type of strategic voting.



preferred party leader (or leaders, when they had more than one) instead of their own party.<sup>17,18</sup> The second should capture the amount of party defection that takes place in an election for the sake of expressing the preference of a particular candidate in the race due to the candidate's personal qualities. Unfortunately, we lack any good direct measure of this type of party defection for most countries and elections.<sup>19,20</sup> Instead, I create a variable indicating the amount of party defection that is not consistent with any of the other explanations, with the understanding that the remainder might indeed be caused by candidate-level considerations. It is worth noting, however, that the explanations are not mutually exclusive and they might observationally result in the same outcome, making it very difficult for us to accurately distinguish among them. A voter, for example, might choose to vote for one of the major parties because of the liking of a particular candidate, yet, given the methodology used here, we would be considering this vote a strategic one instead of a candidate-centered one, and thus it would not be part of the *unexplained* remainder. In other words, the measure of candidate-centered voting for a particular candidate is probably an under-estimate.

The main independent variables of interest are the two different electoral systems used in these countries: single-member district FPTP elections and multi-member PR elections with closed party lists. Because we are comparing the two votes cast by the same individual, in the same country, at the same time, we can simply compare the average outcomes to see the effect of the electoral institutions on their voting behavior. However, in order to see whether the differences are statistically significant and also explore whether they are exacerbated by other factors, I perform an analysis where I interact the electoral system with other potential determinants of party defection: (1) respondent's strength of party attachment gauged by whether the respondent admitted to feeling close to a party when first asked, (2) whether the respondent identified with a minor party in

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<sup>17</sup>To identify the respondents' preferred party leader(s), I used their ratings on a scale from zero (strongly dislike) to 10 (strongly like) of the major party leaders in the election. First, the leaders with the highest rankings were identified. Then, a vote for their party was considered to be a vote for them if their ranking was seven or above.

<sup>18</sup>Blais and Gschwend (2010) use a similar methodology to identify this type of party defection.

<sup>19</sup>The exceptions are the single-member district elections in Hungary and Japan, where respondents were asked to name the candidates in the election and, therefore, where we can observe whether their vote choice coincides with the party of the candidates they recall.

<sup>20</sup>This module of the CSES dataset does not even contain information on who the incumbents are.

either the PR tier or the FPTP tier,<sup>21</sup> (3) the respondent's level of political knowledge,<sup>22</sup> (4) the level of competition of the SMD race measured by the electoral margin between the first two major parties,<sup>23</sup> (5) a measure of the respondent's recollection of the names of the candidates from the last lower house election, and (6) whether the respondent had contact with a member of the legislature in the last year. Given that the last two could be endogenous to the electoral system and therefore introduce post-treatment bias to the regressions, they are included separately. Unfortunately, this module of the CSES dataset does not contain information on the number of seats assigned to each district in the PR elections (i.e., district magnitude). It only reports country averages.<sup>24</sup> The most complete of the models used for the analysis is, thus, as follows:

$$\begin{aligned}
& \textit{Party Defection}_{ics} \text{ or} \\
& \textit{Strategic (Party) Vote}_{ics} \text{ or} \\
& \textit{Candidate-Centered Vote}_{ics} = \beta_1 \textit{PR Election}_{ics} \\
& \quad + \beta_2 \textit{Feels Close to a Party}_{ic} \times \textit{PR Election}_{ics} \\
& \quad + \beta_3 \textit{Identifies with Minor Party in SMD}_{ic} \times \textit{PR Election}_{ics} \\
& \quad + \beta_4 \textit{Identifies with Minor Party in PR}_{ic} \times \textit{PR Election}_{ics} \\
& \quad + \beta_5 \textit{Political Knowledge}_{ic} \times \textit{PR Election}_{ics} \\
& \quad + \beta_6 \textit{Margin in SMD Tier}_{ic} \times \textit{PR Election}_{ics} \\
& \quad + \beta_7 \textit{Name Recollection}_{ic} \times \textit{PR Election}_{ics} \\
& \quad + \beta_8 \textit{Contact with MP}_{ic} \times \textit{PR Election}_{ics} \\
& \quad + \theta_{ic} + \delta_{ic} + \epsilon_{ics}
\end{aligned} \tag{2.1}$$

where:

- *Party Defection*<sub>ics</sub> indicates whether respondent *i* in country *c* voted for a party other than his or her own in the elections using electoral system *s*, where *s* is either single-member district FPTP or multi-member district PR with closed party lists.
- *Strategic (Party) Vote*<sub>ics</sub> indicates whether respondent *i* in country *c* casted a strategic vote in the elections using electoral system *s*.

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<sup>21</sup>In this context, I define minor parties as the parties that did not received the largest two vote shares in the SMD tier and as all parties that did not get at least one seat in parliament in the PR tier.

<sup>22</sup>In most countries, respondents were asked three questions to asses their political knowledge. (Only two were asked in Japan). Unfortunately, the level of difficulty of these questions varies widely across countries, which is why for the analysis the variable is standardized to be centered in zero and with standard deviation one in each country.

<sup>23</sup>There is only data on the level of competition of the PR race at the national level. Because the model includes respondents' fixed effects, country level variables will be dropped out of the analysis.

<sup>24</sup>It also reports the district magnitude of the single-member district tier of mixed-electoral systems (which is always one) and of the elections that are not part of a mixed-electoral system, which is what Gschwend (2009) used for his study, but cannot help us in ours.

- *Candidate-Centered Vote<sub>ics</sub>* indicates whether respondent  $i$  in country  $c$  casted a candidate-centered vote in the elections using electoral system  $s$ .
- *PR Election<sub>ics</sub>* indicates whether the vote cast by individual  $i$  in country  $c$  is in the multi-member PR election system ( $s$ ).
- *Feels Close to a Party<sub>ic</sub>* indicates whether respondent  $i$  in country  $c$  reported to feel close to a party.<sup>25</sup>
- *Identifies with Minor Party in SMD<sub>ic</sub>* indicates whether respondent  $i$  in country  $c$  identified with one of the minor parties in the SMD tier.
- *Identifies with Minor Party in PR<sub>ic</sub>* indicates whether respondent  $i$  in country  $c$  identified with one of the minor parties.
- *Political Knowledge<sub>ic</sub>* is a measure, demeaned and standardized at the country level, identifying the level of political knowledge of respondent  $i$  in country  $c$ .
- *Margin in SMD Tier<sub>ic</sub>* is a measure, demeaned and standardized at the country level, of the margin of victory in the SMD election in the district of respondent  $i$  in country  $c$ .
- *Name Recollection<sub>ic</sub>* is a measure, demeaned and standardized at the country level, indicating the number of SMD candidates that respondent  $i$  in country  $c$  was able to recall correctly.
- *Contact with MP<sub>ic</sub>* indicates whether respondent  $i$  in country  $c$  had had any contact with a member of parliament during the past twelve months.
- $\theta_{ic}$  and  $\delta_{ic}$  are respectively fixed and random effects for each respondent  $i$  in each country  $c$ .
- $\epsilon_{ics}$  are the usual residuals.

By including respondent's fixed effects, the model estimates how the voting behavior of the *same* individual changes, on average, as a result of simply voting in a different electoral system.<sup>26</sup> Notice that because we want the main coefficient of interest – that of the variable *PR Election<sub>ics</sub>* alone – to capture the average difference in voting behavior between the two systems, all other variables in the regression are constructed so as to take values of zero for the “average” respondent in each country.<sup>27,28</sup> As a result, a positive coefficient of this variable should be indicative of a larger amount

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<sup>25</sup>In all countries other than New Zealand, the average respondent did not feel close to a party. Because we want the baseline category to reflect the characteristics of the average respondent in each country, for the analysis of New Zealand elections, we included instead a variable indicating whether the respondent did *not* feel close to a party.

<sup>26</sup>To account for the lack of independence between the two votes from the same individual, standard errors are clustered at the respondents' level.

<sup>27</sup>In practice, this meant to demean and standardize all continuous variables so that they would have mean zero and standard deviation at the country level. Similarly, dummy variables were designed so as to indicate when a respondent had a characteristic that deviated from the majority in the country, so that when they took values of zero, they would fit the description of the median respondent in the country.

<sup>28</sup>The baseline category is, then, the expected likelihood of casting a vote for a different party or a strategic vote or a candidate-centered vote (depending on the outcome variable) in the single-member district FPTP election of

of party defection in the PR tier than in the SMD tier for the average respondent in the country. Conversely, a negative coefficient should be indicative of a larger amount of party defection in the SMD tier than in the PR tier for the average respondent in the country.

By adding the interaction terms, we can gauge whether the effect of the electoral systems on voting behavior is different based on other characteristic of the system or of the voters. Positive coefficients of the interactions would indicate that respondents are more likely to vote for a party other than their own (or cast a strategic vote or a candidate vote, depending on the outcome variable) in the PR system than in the SMD district when the value of the variable interacted takes on positive values than when the value of the variable interacted is equal to zero.<sup>29</sup> Because the respondent's ability to recall the candidates' name or their contact with a member of parliament could be the result of the candidates' personal-vote seeking behavior and therefore endogenous to the electoral system, I include those separately to the regressions. As a result, for each combination of country and dependent variable, I run three models: one without any interactions, one with the first set of interactions, and the complete (2.1) model.

## 2.3 RESULTS

Table 2.2 displays the percentage of party defection found in each type of election by country as well as the percentage of party defection consistent with the different explanations described above. As shown in the table, in all countries other than in Germany, there are higher levels of party defection in the FPTP system than in the PR system. In Germany, the amount of party defection appears to be quite similar in both types of elections.

In terms of the different potential explanations for party defection, in almost all cases we find that the FPTP system appears to encourage both a larger amount of strategic voting and a larger amount of candidate-centered voting than the PR system. This is true even after we include the votes for a threshold party in the strategic voting measure in the PR systems of Germany, Hungary and New

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a respondent who does not feel close to any party (in all except in New Zealand), who identifies with one of the major two parties in the SMD tier, who also identifies with one of the major parties in the PR tier, whose political knowledge is average, whose corresponding SMD race was averagely competitive, whose ability to recall the names of the SMD candidates was average, and who did not have contact with any member of parliament in the last year.

<sup>29</sup>To help with the interpretation of coefficients, continuous variables are standardized to be centered at zero and with standard deviation one in each country. See Table A.1. in the Appendix for a summary statistics of the variables in each country.

Zealand.<sup>30</sup> The two exceptions are Germany and New Zealand, where we find larger amounts of candidate-centered voting in the PR system than in the FPTP system. Perhaps not coincidentally, these are the two countries that have tiers linked together in a system of compensatory seats, and therefore where voters do not have the incentive to cast a vote for their preferred party leader in their SMD election since such vote would have no effect on the choice of the head of government (Moser and Scheiner, 2005).

Table 2.2: Party Defection, Strategic Voting, and Candidate-Centered Voting by Electoral System and Country

	Total		Strategic Vote				Candidate Vote			
	Percent		% Vote for		% Vote for		% Vote for		<i>Unexplained:</i>	
	Party Defection		Major Parties		Threshold Party <sup>a</sup>		Party Leader <sup>b</sup>		% Vote for Candidate?	
	PR	FPTP	PR	FPTP	PR	FPTP	PR	FPTP	PR	FPTP
Germany (n=2,019)	0.175 (0.380)	0.170 (0.376)	0.046 (0.211)	0.090 (0.286)	0.006 (0.079)	0.000 (0.000)	0.113 (0.317)	0.000 (0.000)	0.031 (0.174)	0.081 (0.272)
Hungary (n=1,525)	0.075 (0.264)	0.172 (0.378)	0.035 (0.183)	0.053 (0.225)	0.007 (0.083)	0.000 (0.000)	0.040 (0.197)	0.122 (0.327)	0.017 (0.128)	0.036 (0.187)
Japan (n=1,327)	0.203 (0.403)	0.277 (0.448)	0.033 (0.178)	0.117 (0.321)	0.000 (0.000)	0.000 (0.000)	0.106 (0.309)	0.150 (0.357)	0.077 (0.266)	0.082 (0.274)
New Zealand (n=4,080)	0.213 (0.410)	0.299 (0.458)	0.042 (0.202)	0.127 (0.333)	0.009 (0.094)	0.000 (0.000)	0.155 (0.362)	0.000 (0.000)	0.039 (0.193)	0.172 (0.377)
Average	0.181 (0.385)	0.245 (0.430)	0.041 (0.198)	0.105 (0.307)	0.007 (0.082)	0.000 (0.000)	0.121 (0.326)	0.039 (0.193)	0.039 (0.193)	0.116 (0.321)

Notes: Standard deviations in parentheses. Elections in Germany and Hungary were held in 1998. Those in Japan and New Zealand in 1996. <sup>a</sup> The minimum legal threshold to attain representation was imposed only in the PR tiers of Germany, Hungary and New Zealand. <sup>b</sup> Given the linked tiers in Germany and New Zealand, we assume no party leader effects in their single-member district elections.

It is worth mentioning again that, given the identification strategy, it is likely that I am under-estimating the amount of candidate-centered voting that goes on in the elections. As explained earlier, a vote cast for the incumbent in the race, if in a competitive race, would be counted as a strategic vote for the major parties instead of a candidate vote. Also, for example, in Japan, almost 26 percent of respondents voted for one of the candidates whose name they were able to recall in

<sup>30</sup>Recall that this type of strategic vote is non-existent in the FPTP systems or in the PR system of Japan which does not impose a minimum legal threshold for representation.

the SMD election instead of for the candidate of their preferred party. Such voting behavior would indeed be consistent with a personal vote. However, given the measurement used, I have estimated the amount of voting for specific candidates in the Japanese SMD elections at little more than eight percent.<sup>31</sup>

It is also interesting to note here the differences between the countries. Both Japan and New Zealand have significantly higher amounts of party defection than Germany and Hungary. In the FPTP election in New Zealand, for example, we find that almost 30 percent of respondents claimed to have voted for a party other than their own. In contrast, in the PR elections in Hungary, only seven and a half percent of respondents were party defectors. The largest differences seem to be driven by variations in the amount of candidate-centered behavior. This is not all that surprising since Japanese politics are highly personalistic, New Zealand party ties with the electorate were weakening at the time of the 1996 elections, German politics are known for being heavily party-oriented, and Hungary was a relatively new democracy at the time (Moser and Scheiner, 2005; Karp et al., 2002; Denmark, 2001; Conradt and Langenbacher, 2001). Perhaps some of these differences will be better explained once we take into consideration other characteristics of the systems and the voters.

Tables 2.3 through 2.6 show the results of the analyses performed in each of the four countries. Columns (1) through (3) use as the dependent variable whether the respondent voted for a party other than his or her own. Columns (4) through (6) use as the dependent variable whether the respondent was identified as casting a strategic (party) vote. Finally, columns (7) through (9) use as the dependent variable whether the respondent was identified as casting a candidate-centered vote (whether for a specific party leader or for a particular candidate in the race). For each dependent variable, three regressions were run. The first model did not include any interactions to gauge whether the observed differences between the systems were statistically significant. The second model included the first set of interactions, which should not introduce post-treatment bias to the regression and might help us explain some of the variation observed. The third model used all

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<sup>31</sup>Unfortunately, the only other country for which we have enough information to come up with this statistic is Hungary. In Hungarian SMD elections, about nine and a half percent of respondents voted for one of the candidates whose name they were able to recall instead of for their own party. The current measurement estimates the amount of voting for specific candidates at less than four percent.

interaction terms, including those that might be endogenous to the electoral systems, and therefore we should be cautious when drawing conclusions from them.

Table 2.3: Effects of the Electoral Institutions in the 1998 German Elections

	Dependent Variable								
	<i>Party Defection</i>			<i>Strategic Vote</i>			<i>Candidate Vote</i>		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PR Election	0.007 (0.020)	<b>0.100</b> (0.036)	<b>0.101</b> (0.036)	<b>-0.038</b> (0.013)	0.010 (0.016)	0.013 (0.016)	<b>0.066</b> (0.018)	<b>0.106</b> (0.036)	<b>0.104</b> (0.036)
PR $\times$ Feels Close to a Party		-0.043 (0.042)	-0.041 (0.043)		0.006 (0.025)	0.009 (0.026)		-0.062 (0.039)	-0.061 (0.040)
PR $\times$ Identifies with Minor Party in SMD		<b>-0.160</b> (0.045)	<b>-0.160</b> (0.045)		<b>-0.144</b> (0.031)	<b>-0.145</b> (0.031)		0.005 (0.038)	0.005 (0.038)
PR $\times$ Identifies with Minor Party in PR		0.034 (0.155)	0.028 (0.157)		<b>0.404</b> (0.173)	<b>0.403</b> (0.172)		-0.157 (0.178)	-0.160 (0.181)
PR $\times$ Political Knowledge		-0.032 (0.021)	-0.029 (0.021)		-0.017 (0.014)	-0.015 (0.014)		-0.018 (0.019)	-0.016 (0.018)
PR $\times$ Margin in SMD Tier		0.022 (0.021)	0.018 (0.021)		0.016 (0.013)	0.015 (0.014)		-0.000 (0.017)	-0.003 (0.018)
PR $\times$ Name Recollection			-0.028 (0.020)			-0.003 (0.012)			-0.021 (0.018)
PR $\times$ Contact with MP			0.006 (0.058)			-0.031 (0.037)			0.027 (0.049)
Observations	2,236	2,211	2,205	2,236	2,211	2,205	2,236	2,211	2,205

Notes: Respondent clustered standard errors are shown in parentheses. Coefficients statistically significant at the 90 percent level of confidence are shown in bold. All regressions include respondent fixed effects.

The first thing to notice when looking over the tables of results is that electoral institutions are found to have a statistically significant effect on the likelihood of voting for a party other than one's own in all countries except in Germany.

In Japan, Hungary and New Zealand, respondents were more likely to vote for a party other than their own in the SMD election than in the PR election. The effect ranges from almost seven to nine and a half percentage points, depending on the country. The statistical significance of the effect, however, disappears in both Japan and New Zealand once we control for the first set of interactions. In these cases, while electoral institutions have an effect on the overall amount of

Table 2.4: Effects of the Electoral Institutions in the 1996 Japanese Elections

	Dependent Variable								
	<i>Party Defection</i>			<i>Strategic Vote</i>			<i>Candidate Vote</i>		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PR Election	<b>-0.069</b> (0.028)	0.094 (0.058)	0.093 (0.057)	<b>-0.089</b> (0.020)	-0.011 (0.033)	-0.012 (0.033)	-0.040 (0.028)	0.099 (0.061)	0.097 (0.060)
PR × Feels Close to a Party		-0.078 (0.063)	-0.074 (0.063)		-0.004 (0.042)	-0.004 (0.043)		-0.079 (0.067)	-0.077 (0.067)
PR × Identifies with Minor Party in SMD		<b>-0.310</b> (0.062)	<b>-0.314</b> (0.062)		<b>-0.228</b> (0.048)	<b>-0.235</b> (0.049)		<b>-0.225</b> (0.067)	<b>-0.224</b> (0.067)
PR × Identifies with Minor Party in PR		<b>0.259</b> (0.076)	<b>0.241</b> (0.061)		<b>1.246</b> (0.050)	<b>1.256</b> (0.054)		<b>-0.835</b> (0.075)	<b>-0.862</b> (0.068)
PR × Political Knowledge		0.013 (0.024)	0.014 (0.025)		0.016 (0.017)	0.017 (0.018)		-0.000 (0.026)	0.000 (0.027)
PR × Margin in SMD Tier		0.009 (0.026)	0.007 (0.026)		0.009 (0.015)	0.008 (0.016)		-0.002 (0.027)	-0.004 (0.026)
PR × Name Recollection			-0.051 (0.034)			0.006 (0.022)			<b>-0.063</b> (0.035)
PR × Contact with MP			0.081 (0.080)			0.019 (0.040)			0.082 (0.083)
Observations	1,239	1,239	1,220	1,239	1,239	1,220	1,239	1,239	1,220

Notes: Respondent clustered standard errors are shown in parentheses. Coefficients statistically significant at the 90 percent level of confidence are shown in bold. All regressions include respondent fixed effects.

party defection in the country, it does not seem to affect the likelihood of party defection of the average respondent in the country. As we will see later, however, they do have an effect on some of the other type of voters in the country.

In Germany, electoral institutions are found to have no statistically significant effect on the overall likelihood of party defection. (As we will see later, this result is driven by the estimated effect of electoral institutions on the likelihood of candidate-centered voting in Germany.) Electoral institutions are found, however, to have a statistically significant effect on the likelihood of defection for the average respondent in the country. In this case, the average voter is found to have a *higher* probability of defecting in the PR election than in the SMD election.

In all countries except in Hungary, respondents are found to be more likely to cast a strategic vote in the SMD election than in the PR election, overall. The differences range from almost four to almost eight percentage points. Their statistical significance disappears once we control for the



Table 2.5: Effects of the Electoral Institutions in the 1998 Hungarian Elections

	Dependent Variable								
	<i>Party Defection</i>			<i>Strategic Vote</i>			<i>Candidate Vote</i>		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PR Election	<b>-0.095</b>	<b>-0.118</b>	<b>-0.113</b>	-0.011	-0.013	-0.014	<b>-0.099</b>	<b>-0.124</b>	<b>-0.117</b>
	(0.018)	(0.033)	(0.031)	(0.014)	(0.022)	(0.022)	(0.019)	(0.033)	(0.032)
PR × Feels		0.059	<b>0.066</b>		0.013	0.012		0.064	<b>0.072</b>
Close to a Party		(0.038)	(0.039)		(0.029)	(0.029)		(0.040)	(0.040)
PR × Identifies with		-0.027	-0.032		-0.034	-0.034		-0.017	-0.024
Minor Party in SMD		(0.041)	(0.041)		(0.028)	(0.029)		(0.042)	(0.042)
PR × Identifies with		-0.009	-0.007		0.122	0.121		-0.067	-0.063
Minor Party in PR		(0.084)	(0.082)		(0.088)	(0.088)		(0.084)	(0.083)
PR × Political		0.002	0.016		-0.011	-0.010		0.000	0.013
Knowledge		(0.018)	(0.018)		(0.013)	(0.013)		(0.019)	(0.019)
PR × Margin in		-0.001	-0.002		-0.003	-0.003		-0.007	-0.008
SMD Tier		(0.019)	(0.019)		(0.014)	(0.014)		(0.020)	(0.019)
PR × Name			<b>-0.063</b>			-0.007			<b>-0.061</b>
Recollection			(0.017)			(0.014)			(0.018)
PR × Contact			0.048			0.025			0.023
with MP			(0.058)			(0.036)			(0.058)
Observations	1,434	1,432	1,425	1,434	1,432	1,425	1,434	1,432	1,425

Notes: Respondent clustered standard errors are shown in parentheses. Coefficients statistically significant at the 90 percent level of confidence are shown in bold. All regressions include respondent fixed effects.

first set of interactions, indicating again, that although the effects are significant overall they are not significant for the average respondent in the country. The differences, then, are explained by the voting behavior of respondents with qualities that deviate from the norm (more on this later). In Hungary, the coefficients are all of the right sign but not statistically significant.

Major differences across countries arise when looking at the effects of electoral institutions on the probability of casting a candidate-centered vote. While respondents are found to be *more* likely to cast a candidate-centered vote in the PR election than in the SMD election in both Germany and New Zealand, the opposite is estimated to be true in Hungary and Japan. Note, however, that the effects in New Zealand and Japan are not statistically significant in the regression without interactions.<sup>32</sup> As mentioned earlier, these differences across countries might perhaps be explained

<sup>32</sup>The effects in Germany and Hungary remain statistically significant even after controlling for the first set of interactions, and in New Zealand, the effect becomes statistically significant once we control for the first set of interactions.

Table 2.6: Effects of the Electoral Institutions in the 1996 New Zealand Elections

	Dependent Variable								
	<i>Party Defection</i>			<i>Strategic Vote</i>			<i>Candidate Vote</i>		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PR Election	<b>-0.085</b> (0.017)	0.032 (0.022)	<b>0.043</b> (0.025)	<b>-0.078</b> (0.010)	0.001 (0.008)	0.016 (0.011)	0.022 (0.016)	<b>0.040</b> (0.022)	0.038 (0.025)
PR $\times$ Does <i>NOT</i> Feel Close to a Party		0.061 (0.076)	0.046 (0.077)		-0.034 (0.059)	-0.043 (0.058)		0.077 (0.073)	0.073 (0.074)
PR $\times$ Identifies with Minor Party in SMD		<b>-0.249</b> (0.034)	<b>-0.250</b> (0.034)		<b>-0.176</b> (0.021)	<b>-0.179</b> (0.021)		-0.041 (0.033)	-0.040 (0.033)
PR $\times$ Identifies with Minor Party in PR		<b>-0.198</b> (0.114)	-0.187 (0.115)		0.180 (0.125)	0.189 (0.125)		-0.120 (0.139)	-0.117 (0.140)
PR $\times$ Political Knowledge		0.019 (0.017)	0.027 (0.018)		0.013 (0.010)	0.017 (0.011)		0.009 (0.017)	0.011 (0.018)
PR $\times$ Margin in SMD Tier		<b>0.061</b> (0.016)	<b>0.059</b> (0.016)		<b>0.031</b> (0.010)	<b>0.031</b> (0.010)		<b>0.030</b> (0.016)	<b>0.028</b> (0.016)
PR $\times$ Name Recollection			-0.025 (0.018)			-0.007 (0.011)			-0.013 (0.019)
PR $\times$ Contact with MP			-0.031 (0.036)			<b>-0.044</b> (0.023)			0.007 (0.034)
Observations	4,281	4,281	4,265	4,281	4,281	4,265	4,281	4,281	4,265

Notes: Respondent clustered standard errors are shown in parentheses. Coefficients statistically significant at the 90 percent level of confidence are shown in bold. All regressions include respondent fixed effects.

by the linkage between the two tiers of the mixed electoral systems of Germany and New Zealand. As the choice for head of government is determined solely by the outcome of the PR election, the incentives to cast a personal vote for a particular party leader in the SMD election vanishes. Having said that, given the limitations of the identification strategy used for this type of party defection, I refrain from drawing strong conclusions from this part of the analysis. Let us turn now to examine the interaction effect between the electoral systems and other characteristics of the election or the voters.

The strength of party attachment only appears to be significant in Hungarian elections, and only after controlling for both name recollection and contact with MP. In this case, respondents who felt close to their party were more likely to cast a candidate-centered vote in the SMD election than in the PR election as compared to those who did not feel close to their party and holding all other

variables at the country average. In other words, they were less likely to vote for a party than their own when casting a vote specifically for a party than when casting a vote for a candidate.

As predicted, respondents who identified with one of the minor parties of the SMD tier (i.e., those that were not one of the top two contenders) were more likely to vote strategically in the SMD election than in the PR election in all countries except in Hungary, where the coefficient is of the right sign but not statistically significant. In the case of Japan, they were also more likely to cast a candidate-vote in the SMD election than in the PR election. Also as expected, respondents who identified with one of the minor parties of the PR tier (i.e., those that did not get even a single seat) were more likely to vote strategically in the PR election than in the SMD election. Although all coefficients are of the right sign, they are only statistically significant in Germany and Japan, however. In Japan, these respondents are also found to be more likely to cast a candidate-vote in the SMD than in the PR election.

The margin of victory in the SMD tier appears to only have a statistically significant effect in the New Zealand elections. Consistent with the literature, I find that, as the margin of victory grows, the incentive for strategic voting in the SMD elections decreases. Interestingly, so does the amount of candidate-centered voting observed in the SMD election, as compared to that in the PR election.<sup>33</sup>

As theorized, respondents who were capable of recalling the names of the SMD candidates were more likely to cast a candidate vote in the SMD election than in the PR election. The coefficients are estimated to be of the right sign in all countries, but are found statistically significant only in Hungary and Japan. Having been in contact with a member of parliament in the last twelve months is found to only have a statistically significant effect in New Zealand. Those who had been in contact with a member of parliament were more likely to cast a strategic vote in the SMD election than in the PR election. Perhaps their contact was with the incumbent candidate in the SMD election and if the race was competitive and the incumbent was among the top two contenders, then, given the measurement strategy, we would be counting a vote for the incumbent as a strategic vote (even though it might indeed be a candidate-centered vote). Lastly, consistent with recent studies, the

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<sup>33</sup>Perhaps uncompetitive SMD races do not attract very charismatic challengers or perhaps, as voters are more likely to vote sincerely in the SMD tier, they feel more inclined to cast a vote for a party leader in the PR tier.

level of voters' political knowledge does not seem to have a systematic effect on their propensity to vote for a party other than their own.

To summarize, single-member district FPTP elections, as compared to multi-member district PR elections, are found (a) to increase the probability to vote for a party other than one's own in all countries other than in Germany,<sup>34</sup> (b) to increase the probability of casting a strategic vote in all countries other than in Hungary,<sup>35</sup> and (c) to increase the probability of casting a candidate-centered vote in countries without their tiers linked (i.e., Hungary and Japan), but to decrease it in countries with linked tiers (i.e., Germany and New Zealand). Effects are found to vary in the expected direction depending on (i) the strength of the party attachment (in the case of Hungary), (ii) whether the respondents identified with a minor party in the SMD tier (in all countries other than in Hungary), (iii) whether the respondent identified with one of the minor parties of the PR tier (in Germany and Japan), (iv) the margin of victory in the SMD tier (in New Zealand), (v) respondent's ability to recall the names of the SMD candidates (in Hungary and Japan), and (vi) respondent's contact with a member of parliament in the last year (in New Zealand). Consistent with recent studies, respondents' knowledge of politics is not estimated to modify the effect that electoral institutions have on voting behavior.

## 2.4 DISCUSSION: THE U.S. CASE

In the U.S. context, party defection in congressional elections appear to be a good proxy for incumbency advantage, on the grounds that if citizens are voting for a party other than their own it usually is because they are voting for the incumbent. A cursory look at the trends of incumbency advantage and party defection in the U.S., shows how closely these two phenomena follow each other. See Figures 2.1 and 2.2.

This is true because congressional elections in the U.S. are single-member district FPTP elections with only two contenders and in which outcomes bear no direct effect on the election of the head of government (i.e., the U.S. President). As a result, voters have no incentive to either cast a strategic vote or to cast a vote for their preferred party leader as head of government. When put in this

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<sup>34</sup>Where the effect is not statistically significant.

<sup>35</sup>Where the effect is of the right sign but not statistically significant.

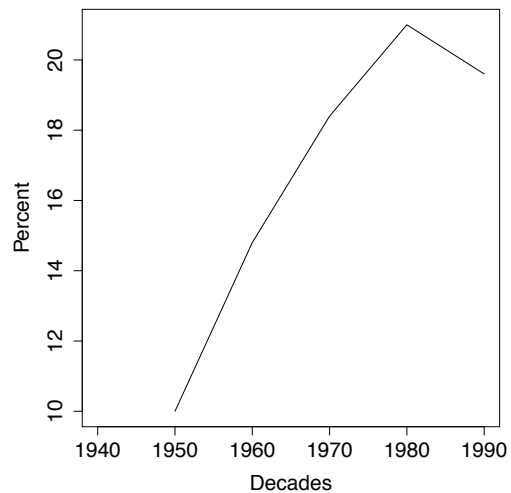
context, it makes sense that the level of party defection observed in the U.S. election in the CSES dataset should be relatively small compared to that of other countries.

Figure 2.1: Congressmen’s Incumbency Advantage in the U.S., 1940-1990



Source: Ansolabehere and Snyder (2002)

Figure 2.2: Party Defection in US Congressional Elections, 1940-1990



Source: J Ornstein and J Malbin (2009)

However, since we have found evidence that the electoral institutional arrangements might encourage different levels of party defection, partisan voting, and candidate-centered voting, when comparing the voting behavior in the U.S. system to other countries, one should make sure to do so with countries with similar electoral systems.

## 2.5 CONCLUSION

This paper explores the impact of electoral institutions on the probability that voters will cast a ballot for a party other than their own, whether it be to make their vote “count” towards achieving a preferred electoral outcome or to support a specific candidate. Specifically, I analyze the voting behavior in the four countries in the CSES dataset that use a mixed-electoral system, where we can observe the same individual casting two votes at the same time, each in a different electoral system. This way, we can compare their voting behavior in the two different electoral systems, while keeping everything else constant.

Analyzing the elections in the late nineties in Germany, Hungary, New Zealand, and Japan, I find that, as compared to multi-member district PR elections with closed party lists, single-member district FPTP elections (a) increase the probability to vote for a party other than one's own in all countries other than in Germany (which politics are known for being heavily party-oriented), (b) increase the probability of casting a strategic vote in all countries other than in Hungary (which was a relatively new democracy at the time), and (c) increase the probability of casting a candidate-centered vote in countries without their tiers linked (i.e., Hungary and Japan), but decrease it in countries with linked tiers (i.e., Germany and New Zealand).

In some countries, the effects are found to vary in the expected direction depending on (i) the strength of the party attachment, (ii) whether the respondents identified with a minor party in the SMD tier, (iii) whether the respondent identified with one of the minor parties of the PR tier, (iv) the margin of victory in the SMD tier, (v) respondent's ability to recall the names of the SMD candidates, and (vi) respondent's contact with a member of parliament in the last year. Consistent with recent studies, respondents' knowledge of politics is not found to modify the effect that electoral institutions have on voting behavior.

Based on the evidence presented in this paper, then, we can agree with Carey and Shugart (1995) and conclude that electoral institutions have a substantial effect on the degree to which politics in the system is party-oriented or personalistic, and, thus, they might in turn have an impact on the level of incumbency advantage in the elections. More research is needed, however, to know exactly how and by how much.

There are some limitations to the analyses presented here. First and foremost, the measure of candidate-centered voting probably grossly underestimates the amount of personal voting that might be taking place in the elections. For example, it would currently not identify a personal vote for the incumbent in the race as a candidate-centered vote, if the incumbent was amongst the top two contenders in a competitive race. As a result, one should be cautious to draw any strong conclusions from the part of the analysis that relies on this data. I plan to collect data on the identity and partisan affiliation of the incumbents in the race with the aim to improve this measure in future versions of the paper. Second, the study relies on respondents claims of their voting behavior after the election. In this type of electoral survey, scholars have found that respondents tend to report to have voted for the winner even if they did not (Alvarez and Nagler,

2000). If this is the case, I might be overestimating the amount of strategic behavior in the elections. Unfortunately, there is nothing that I can do about it but the hope is that, if there is any lying, it might be consistent across electoral systems and, therefore, not have much of an impact on the results.

# 3

## HOW PARTIES HELP THEIR INCUMBENTS WIN: EVIDENCE FROM SPAIN

Incumbents are consistently found to have an electoral advantage over their challengers in developed democracies.<sup>1</sup> The normative ramifications of this phenomenon depend in part on its sources. If incumbents fare better than their challengers at the polls simply because they are better candidates, we would perceive their advantage as a sign of a healthy democracy. If the electoral advantage of incumbents comes from their exploiting office resources to deter high-quality challengers, however, then the incumbents' advantage would diminish the accountability and competitiveness of the elections and have serious negative consequences for representation.

Many scholars have looked for the potential sources of incumbency advantage, especially in reference to U.S. elections. Despite the large existing literature, there is very little consensus. Scholars have focused primarily on the activities in which the *incumbents* personally engage in order to accrue such advantage and have mostly neglected the activities in which *parties* engage in order to favor their incumbents. The literature on political parties, however, has long identified parties as organizations that aim to foster the electoral success of their affiliates (Aldrich, 1995). We might, then, reasonably suppose that party actions drive some of the observed incumbency advantage. In the study presented here, I provide extensive evidence of a meaningful incumbency advantage created not by the actions of individual politicians but by the actions of their parties.

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<sup>1</sup>For U.S. elections see, for example, Erikson (1971, 1972); Mayhew (1974); Cover and Mayhew (1977); Gelman and King (1990); Levitt and Wolfram (1997); Ansolabehere, Snyder and Stewart (2000); Ansolabehere and Snyder (2002); Gelman and Huang (2008). For parliamentary elections in the U.K see, for example, Gaines (1998), and Katz and King (1999). For German elections see Hainmueller and Kern (2008). For Japanese elections see Reed (1994); Hirano (2007). For Canadian provincial elections see Krashinsky and Milne (1983). For Canadian federal elections see Krashinsky and Milne (1985) and Kendall and Rekkas (2012). For municipal elections in Portugal see Migueis (2010).



In this paper, I study the elections to the Spanish Senate, where the commonly studied sources of incumbency advantage are very unlikely to be present. Among other things, Spanish senators cannot credibly take credit for any particular piece of legislation, they have limited access to resources that they can use for their electoral advantage, and they do not have control over campaign funds. Consequently, if we find that Spanish senators have an advantage over their challengers, we should look for other sources as potentially responsible. In addition, the design of the electoral system of the Spanish Senate allows for an unusually precise measurement of incumbency advantage. Spanish senatorial elections follow a multimember plurality system, where multiple candidates from the same party run alongside each other when competing for multiple seats in a district. Following Hirano and Snyder (2009), we can estimate the incumbents' advantage by comparing their electoral outcomes to those of their co-partisans running in the same race.

Analyzing a newly compiled dataset, I find that in the nine elections following the re-establishment of Spanish democracy in 1977, senators enjoyed a significant advantage over their co-partisan challengers. This advantage is estimated to increase the probability of all incumbents being reelected by almost 25 percentage points but that of vulnerable incumbents by more than 50 percentage points. Furthermore, I find that the main source of such advantage came from the strategic behavior of the parties, which helped their more vulnerable senators get reelected by ensuring that they be placed first on the ballot. Since during these elections the law stipulated that candidates be ordered on the ballot alphabetically, to ensure that incumbents be placed first, parties had to nominate the incumbents' running mates with last names further down the alphabet. Based on the evidence presented here, this practice became widespread after 1986, especially among parties that did not have sufficient support in the district to get all of their candidates elected.

The findings of this paper are relevant beyond the elections to the Spanish Senate. The evidence identifies parties' actions as a significant source of the incumbents' advantage in Spanish senatorial elections, in which parties have relatively weak incentives to get their preferred incumbents reelected but where we happen to be able to observe the phenomenon clearly. Although the specifics might vary by electoral system, one can only imagine how much more prominent this type of strategic behavior by the parties may occur in high-stakes elections, especially those in which parties are powerful. In general, political parties have incentives to keep their incumbents in office; therefore, it is rational for them to try to actively help vulnerable incumbents gain an advantage over their

challengers. In Spain, as the Senate is a relatively weak institution, parties view it as either a place of retirement for loyal politicians or a training ground for younger, promising ones. Thus, although they have an interest in getting their chosen politician elected, the stakes for parties are relatively low. Presumably, as the stakes become higher, the stronger become the incentives of the parties to help their incumbents. Their opportunities to do so, however, might vary according to the conditions and characteristics of a given election. In other contexts, parties might supply organizational support, help with fundraising, coordinate public endorsements, discourage talented within-party challengers, provide key promotions, and offer high-profile appointments, for example. More research is needed to understand the impact of party actions on incumbency advantage in developed democracies other than Spain.

In the remainder of the paper, I first review the existing literature on the sources of incumbency advantage. Then, I describe the characteristics of the Spanish senatorial elections and the data employed in the analyses. Next, I provide an intuition about the concept of incumbency advantage, describe the specific methodology used for the estimations, identify the empirical strategy used to gauge how much of the observed incumbency advantage comes from the particular mechanism of strategic ballot position, and make a couple of other methodological points. Finally, I present the results and conclude.

### 3.1 LITERATURE REVIEW

There is a vast literature exploring different potential sources of incumbency advantage. However, we have yet to have a clear understanding of all the sources behind this phenomenon.

The literature on the causes of the incumbency advantage in the U.S. is the most extensive. Perhaps because political parties in the U.S. are not perceived to be as powerful at the national level as the candidates themselves, this literature has focused primarily on the strategies *incumbents* employ to improve their electoral odds. Scholars have investigated whether incumbents generate such advantage by ideologically aligning themselves to their constituents (Mayhew, 1974; Serra and Moon, 1994); bringing pork to the district (Mayhew, 1974; Fiorina, 1980; Feldman and Jondrow, 1984; Stein and Bickers, 1994, 1997; Alvarez and Saving, 1997; Levitt and Snyder, 1997); focusing on constituency service (Fiorina, 1977; Johannes and McAdams, 1981; Fiorina, 1981; Yiannakis,

1981; Johannes, 1984; Cain, Ferejohn and Fiorina, 1987; Serra and Cover, 1992; Serra, 1994; Campbell, 1983; Parker and Parker, 1985); raising high levels of campaign funds (Glantz, Abramowitz and Burkart, 1976; Jacobson, 1978, 1980; Abramowitz, 1991); scaring off high-quality challengers (Levitt and Wolfram, 1997; Canon, 1990; Cox and Katz, 1996); and engaging in activities that might increase their name recognition (Stokes and Miller, 1962; Mayhew, 1974; Abramowitz, 1975; Ferejohn, 1977; Romero, 1996), among others.

The few studies of the sources of incumbency advantage in other developed countries seem to have followed the lead of the U.S. literature and examine the same type of activities. For example, analyzing British parliamentary elections, Gaines (1998) finds that the recent focus of MPs on constituency service has not resulted in a higher level of incumbency advantage. Migueis (2010) finds that the financial transfers from the Portuguese central government to its municipalities are not the main driver of incumbency advantage in their municipal elections. Hirano (2007) examines office-holding benefits and candidate quality as explanations for the success of LDP candidates in Japanese lower house elections. Heintzman (1991) finds that the advantage of the incumbents in the 1988 Canadian elections cannot be explained by their higher levels of campaign funds.

In summary, even though the literature on political parties has long identified them as organizations that aim to foster the electoral success of their affiliates (Aldrich, 1995), the literature on the causes of incumbency advantage has seldom focused on parties' actions. The evidence presented here suggests that parties' behavior is a potential source of incumbency advantage worth exploring, especially in electoral contexts in which parties are powerful.

### 3.2 SPANISH SENATORIAL ELECTIONS AND DATA

The elections to the Spanish Senate provide an interesting opportunity to look for new sources of incumbency advantage because the commonly studied sources are unlikely to be present. This is the case for several reasons:

First, the Spanish Senate has little legislative power. It has most of its power subjugated to the lower chamber of the Spanish legislature, called the Congress of Deputies. For example, most pieces of legislation must be initiated by the Congress of Deputies and the Congress of Deputies can override a Senate veto with a simple majority. This means that the ideological positions of

senators make little difference to policy making and that no senator can credibly take credit for any particular piece of legislation that benefits his or her constituents.

Second, senators in Spain do not have access to many resources that they can use to their electoral advantage. For example, only the president, the two vice-presidents, and the four secretaries of the chamber have personal assistants. In addition, Spanish senators have neither the resources nor the opportunity to provide constituency services.

Furthermore, Spanish senators do not raise or control the funds for their electoral campaigns. The government provides campaign funds, which are then controlled by the parties, not by individual politicians.<sup>2</sup> As a result, electoral campaigns tend to be party-centered rather than candidate-centered. If there is a candidate mentioned in the campaign at all, it tends to be the party's proposed candidate for the presidency, who is one of their candidates for the Congress of Deputies. Rarely do electoral campaigns mention any of the candidates for the Senate.

As a result, senators' name recognition in Spain is extremely low.<sup>3</sup> Given these conditions, if we find any significant incumbency advantage in Spanish senatorial elections, we should expect that it comes from sources other than those commonly explored in the incumbency advantage literature.

### 3.2.1 CHARACTERISTICS OF THE SPANISH SENATORIAL ELECTIONS

The Spanish Senate is composed of 264 members, 208 of whom are elected via a multimember plurality system. The remaining 56 senators are appointed by the regional legislative assemblies. This paper focuses on the election of those 208 members, which is the only instance in Spanish national politics in which citizens cast their votes for candidates, rather than parties.

There are 59 districts in Spain.<sup>4</sup> In the majority of districts, four senators are elected and voters are allowed to vote for up to three different candidates, from the same or from different parties.<sup>5</sup>

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<sup>2</sup>Electoral campaigns are publicly financed as long as they stay within certain limits and the party is successful in gaining some representation in the legislative branch.

<sup>3</sup>Senators, party leaders, and journalists interviewed estimated that less than one percent of the population would be able to name one of his or her senators.

<sup>4</sup>There is one district for each of the 47 peninsular provinces, one for Ceuta, one for Melilla, and one for each of the ten islands. Ibiza and Formentera share a district.

<sup>5</sup>The districts from the peninsula are given four senators each but the rest are given between three and one. Mallorca, Gran Canaria, and Tenerife have three seats each and citizens are allowed two votes. Ceuta y Melilla have

In order to optimize their results, the major parties usually nominate as many candidates to each race as citizens have votes.

Because Spanish senatorial elections generate very little public interest, citizens have little knowledge about the characteristics of particular candidates. Thus, despite the fact that citizens cast their votes for particular candidates within a party rather than for a party in general, most citizens cast their votes based solely on partisan considerations. As a result, two factors largely determine outcomes in Spanish senatorial elections. The first factor is the popularity of the party. The second is the order of the candidates on the ballot, conditional on the party's popularity. For example, in districts where four senators are elected, the first three seats often go to *all* the candidates of the most popular party in that district.<sup>6</sup> The remaining seat tends to go to one of the candidates from the second most popular party, usually the one listed *first* on the ballot. Based on party popularity and ballot position alone, we can predict 90% of the winners in the Spanish senatorial elections from 1977 to 2008.<sup>7</sup>

Up until 2010, candidates had to be listed on the ballot by the alphabetical order of their last names.<sup>8</sup> In 2010, the law was changed to eliminate the alphabetical rule and give parties the power to freely decide the order in which candidates appear on the ballot. Here, I focus only on the elections that occurred while the order was determined by the last names of the candidates, that is, the elections from 1977 to 2008.

### 3.2.2 DATA

The analyses employ electoral results for the ten elections that took place after Francisco Franco died and Spain re-instituted its democracy. The raw data were provided by the Interior Ministry

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two seats each and citizens are also allowed two votes. Menorca, Ibiza-Formentera, Fuerteventura, Gomera, Hierro, Lanzarote, and La Palma have one seat each and citizens are allowed one vote.

<sup>6</sup>As mentioned earlier, major parties tend to nominate as many candidates as votes given to citizens. In districts with four seats, citizens are given three votes and, thus, major parties usually nominate three candidates.

<sup>7</sup>Given that the elections for the Senate happen simultaneously to the elections for the Congress of Deputies, where citizens vote for parties, we can construct a measure of party popularity at the district level based on the results of the Congress of Deputies election in the districts.

<sup>8</sup>From 1977 until 1982, the Senate ballot listed the candidates in alphabetical order, not grouping them by party and simply indicating their party affiliation next to each name. Starting in 1986 and up until the 2008 election, the ballot listed the candidates grouped by party, and within each party, candidates were listed in alphabetical order. Thus, in all the elections from 1977 until 2008, the order of the candidates within each party was based on the candidates' last names.

of Spain.<sup>9</sup> The data were provided at the level of the polling station for the elections from 1986 to 2008 and at the level of the districts for the first three elections.<sup>10</sup> For the analyses presented here, the observations were aggregated at the district level.

### 3.3 INCUMBENCY ADVANTAGE: DEFINITION AND METHODOLOGY

The initial goal of the analysis is to estimate the electoral advantage that Spanish senatorial incumbents have over their challengers, which in multimember districts includes challengers from the incumbents' own party.

Most scholars have studied the phenomenon in single-member districts. In that type of election, incumbency advantage is usually understood as the benefit derived from: (1) holding office for at least a term, (2) being a high-quality candidate, and (3) deterring high-quality challengers from entering the race (Cox and Katz, 1996; Levitt and Wolfram, 1997). In multimember districts, the composition of incumbency advantage would be the same except that the third component would include the benefit of deterring high-quality challengers *from one's own party* from entering the race. In other words, in electoral systems with intra-party competition, the electoral advantage of incumbents might come not only from attracting votes away from candidates from an opposing party but also from luring votes away from candidates from their own party.<sup>11</sup>

#### 3.3.1 METHODOLOGY FOR ESTIMATING INCUMBENCY ADVANTAGE

The design of the Spanish electoral system allows for an unusually precise measurement of incumbency advantage. Spanish senatorial elections follow a multimember plurality system, where multiple candidates from the same party run alongside each other when competing for multiple

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<sup>9</sup>The data required cleaning and assembling. The identification of the incumbents in each election was particularly elaborate as it involved merging the files using senators' names as the key variable. (The identification numbers provided for both senators and parties were different each year). Because the names of the senators were sometimes reported differently (due to misspellings or to omission of middle names, for example), I had to manually modify some of them. Every effort was made to ensure that the right matches occurred and that all of the incumbents were identified.

<sup>10</sup>There are about 60,000 polling stations in Spain, each capturing the vote choice of 200 to 2,000 individuals. Thus, the dataset consists of more than 13 million observations, containing information about the electoral outcomes in each of the polling stations of the 11,181 candidates who ran for the Senate in the period under study.

<sup>11</sup>See Ariga (2010) for a description of the different types of incumbency advantage that one encounters in multimember districts as compared to single-member electoral systems.

seats in a district. Following the method introduced by Hirano and Snyder (2009), we can estimate the incumbents' advantage by comparing their electoral outcomes to those of their co-partisans running in the same race. As the candidates being compared belong to the same party and are running in the same district, their electoral outcomes should only differ in as much as their quality and access to office resources differ. Thus, the resulting measure of incumbency advantage is a reasonable indicator of how much of an electoral boost senators enjoy due to (a) their already having served at least one term, and (b) their being better candidates than their co-partisan counterparts. Notice, however, that this measure of incumbency advantage does not capture the so-called "scare-off effect" that incumbents might have on high-quality challengers *from a different party*. Thus, it is worth noting that it might only be a partial measure of the total incumbency advantage of senators in Spain. For the sake of simplicity, however, throughout the paper I will refer to this measure as that of the incumbency advantage of senators in Spain.

In order to use this method to analyze Spanish Senate elections, we first have to compute the dependent variable. Because I would like the measure of the candidate's vote share to range from zero to one across all districts, I use the following formula:

$$Vote\ Share_{ipdt} = \frac{Votes\ for\ Candidate\ i\ of\ Party\ p\ in\ District\ d\ at\ Time\ t}{\left( \frac{Valid\ Votes\ in\ District\ d\ at\ Time\ t}{Number\ Votes\ per\ Citizen\ in\ District\ d} \right)}$$

where the numerator is the total number of votes that candidate  $i$  of party  $p$  received in the district  $d$  at time  $t$ , and the denominator is the maximum number of votes that candidate  $i$  would have received in the district  $d$  at time  $t$  if every person who went to the polls voted for him or her, among others. The denominator is composed of the total number of valid votes placed in district  $d$  at time  $t$  divided by the number of votes that citizens are allowed to cast district  $d$ .

The models estimated are as follow:

$$Vote\ Share_{ipdt} = \beta_0 + \beta_1 Incumbent_{ipdt} + \theta_{pdt} + \epsilon_{ipdt} \quad (3.1)$$

where  $Vote\ Share_{ipdt}$  is the vote share that candidate  $i$  from party  $p$  received in district  $d$  at time  $t$ ;  $Incumbent_{ipdt}$  is a dummy variable indicating whether the candidate is an incumbent;  $\theta_{pdt}$  are fixed effects for each combination of district  $\times$  party  $\times$  year; and  $\epsilon_{ipdt}$  are the usual residuals.

The inclusion of fixed effects for each combination of district, party, and year focuses the analysis on electoral outcomes at the district level of co-partisans running together. Running this linear

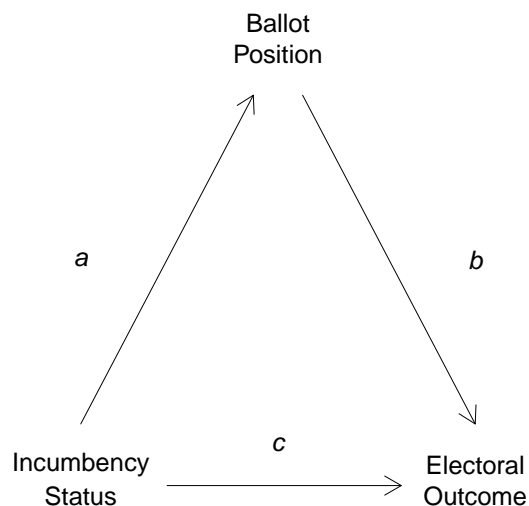
regression is equivalent to calculating the average difference between the electoral outcome of incumbents and that of their co-partisan non-incumbents running in the same district. The advantage of performing the analysis this way is that the regression analyses indicate whether the difference between the two electoral outcomes is statistically different from zero.<sup>12,13</sup>

In addition to models estimating the incumbency advantage of senators in Spain, I also run models estimating the effect that such advantage has on the candidates' probability of being elected. These models take a form identical to the vote share model in 3.1 but use as a dependent variable  $Elected_{ipdt}$ , which takes the value of one if candidate  $ipd$  was elected at time  $t$  and zero otherwise.

### 3.3.2 METHODOLOGY FOR ESTIMATING THE SIZE OF A SOURCE

The source of incumbency advantage is also of interest, specifically how much of the incumbents' electoral advantage derives from their strategic positioning on the ballot.

Figure 3.1: Diagram of Casual Path




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<sup>12</sup>Block bootstrap standard errors with 10,000 simulations are used throughout. I use district-years as blocks when analyzing the entire time period. I use districts as blocks when analyzing the data before and after 1989. See Bertrand, Duflo and Mullainathan (2004) for a description of the virtues of block bootstrap.

<sup>13</sup>Given the model specification, the regressions only include observations of the parties that nominated at least one incumbent and one non-incumbent.



To gauge the impact of this particular mechanism, let us assume the basic causal chain described in Figure 3.1, in which incumbency status has both a *direct* effect on electoral outcomes (path *c*) and an *indirect* effect through the mechanism of candidate ballot position (the path *a-b* in the diagram). Since the total effect of incumbency status on electoral outcomes is equal to the sum of these two effects, direct and indirect, then we can estimate the indirect effect, which is the mechanism-specific path that we are interested in, by calculating the difference between the total effect and the direct effect (Baron and Kenny, 1986).

Model 3.1 estimates the total effect that incumbency status has on electoral outcomes,  $\hat{\beta}_1$ . To estimate the direct effect that incumbency has on electoral outcomes, once we control for candidate ballot position, we can use the following model:

$$\begin{aligned} \text{Vote Share}_{ipdt} = & \beta_0' + \beta_1' \text{Incumbent}_{ipdt} + \\ & + \beta_2' \text{First on the Ballot}_{ipdt} + \\ & + \beta_3' \text{Third on the Ballot}_{ipdt} + \\ & + \theta_{pdt} + \epsilon_{ipdt} \end{aligned} \tag{3.2}$$

where everything is as Model 3.1 but now we control for the position of the candidate on the ballot by including whether candidate *ipdt* is listed first or third among his co-partisans.<sup>14</sup>

The difference between these two effects,  $\hat{\beta}_1 - \hat{\beta}_1'$ , should be a reasonable estimate of the indirect effect that incumbency has on electoral outcomes through the specific mechanism of candidate ballot position, as long as certain assumptions are met (Baron and Kenny, 1986; Glynn, 2011). In addition to the usual assumptions necessary for unbiased estimates, we have to assume that there is no interaction effect at the individual level between incumbency and ballot position. In other words, we need to assume that being the incumbent and appearing first on the ballot does not have an effect above and beyond the sum of these two effects separately. Given the lack of public attention to senatorial elections, incumbents have very little name recognition, and thus this assumption is reasonable. Furthermore, as shown later, the data is consistent with this assumption.

As before, in addition to models estimating the direct and indirect effects of incumbency on the vote share of the candidates, I also run models estimating the direct and indirect effects that such advantage has on the candidates' probability of being elected. The procedures are the same

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<sup>14</sup>The baseline category is being listed second.

as described above, except that here the dependent variable is whether or not the candidate was elected.

### 3.3.3 HETEROGENEITY OF EFFECTS BASED ON THE VULNERABILITY OF THE CANDIDATES

Throughout the analysis, I allow for the estimates to differ according to the popularity of the candidates' party in the district in which they are running. In particular, for each district I distinguish between the most popular party, the second most popular, and the rest.<sup>15</sup> To make these distinctions, I use the electoral outcomes of the simultaneous elections to the Congress of Deputies, where citizens are asked to place votes for closed-party lists. The assumption made is that elections to the Senate do not affect elections to the Congress of Deputies. That is to say, there are no spillover effects, which seems reasonable given the characteristics of Spanish elections.

As described earlier, candidates face very different prospects of election depending on the popularity of their party. While all candidates from the most popular party in a district are almost assured election, only one of the candidates from the second most popular party is likely to be elected. For the candidates from the rest of the parties, the odds of gaining a seat are quite low.<sup>16</sup>

I estimate different effects based on the popularity of the parties to allow the candidates' level of vulnerability to play a role in the analysis. For example, we may observe that the more vulnerable incumbents receive more help from their parties than those who are in safer seats. This would be consistent with recent findings (Hirano and Snyder, 2009; Hirano, 2007).

### 3.3.4 FOCUS ON TWO MOST POPULAR PARTIES IN THE RACES

Lastly, the analysis focuses exclusively on the incumbency advantage of candidates in the two most popular parties in each district. One could argue that the incumbency advantage observed in other parties is qualitatively different than that in the two most popular parties. A candidate from a less popular party cannot simply rely on his or her party's reputation to win a seat. To be elected, he

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<sup>15</sup>It is worth noting that there are some parties that nominate candidates for the election to the Senate but do not run in the election to the Congress of Deputies. For these parties, I do not have information about their popularity in the district, and thus, they end up in the "rest" category.

<sup>16</sup>Historically, fewer than 1.5% of the candidates from parties other than the top two have been elected.

or she must already be a popular figure.<sup>17</sup> For this reason, I exclude from the study incumbents from parties other than the top two.

Even though in Spanish senatorial elections there are, on average, candidates from 12 different parties in each race, historically candidates from the two most popular parties in each district have won 93 percent of the seats.<sup>18</sup> Out of the 934 incumbents who ran in the elections under study, 89 percent belonged to one of the top two parties.

### 3.4 RESULTS

The main results are summarized in Table 3.1. Incumbents from the two most popular parties are estimated to have, on average, an electoral advantage of a little less than .7 percentage points over their co-partisan non-incumbents, which, in spite of its small magnitude, is estimated to increase the incumbents' probability of being elected by almost 25 percentage points. In general, Spanish senatorial elections are won by small margins; thus, even a small increase in a candidate's vote share can have a large effect on that candidate's probability of success. On average, the difference between winning and losing is only 3 percentage points.<sup>19</sup>

A more interesting story comes to light when we distinguish among incumbents based on the popularity of their party in the district. As shown in Table 3.1, incumbents from the second most popular party in a district have a significantly higher incumbency advantage than those from the most popular party, an effect of 1 percentage point compared to .5 percentage points. This larger advantage provides incumbents from the second most popular party an increased probability of being elected of over 55 percentage points. In other words, among candidates from the second most popular party in the district, the probability of incumbents being elected is 55 percentage points higher than that of their co-partisans running in the same race. In contrast, the electoral advantage enjoyed by incumbents from the most popular party does almost nothing to boost their

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<sup>17</sup>This is consistent with the information provided in the interviews.

<sup>18</sup>All but 11 of the remaining 158 seats went to candidates who ran as independents or whose party did not have a ticket in the Congress of Deputies election, and therefore I do not have a measure of that party's popularity in the district. Given the regional nature of the Senate, some parties form especially to push a specific regional issue in the Senate and, therefore, only participate in those elections.

<sup>19</sup>This is calculated as the average difference between the vote share of the candidate who was elected with the least number of votes and the vote share of the candidate with the most number of votes among those candidates that were not elected.

probability of re-election. The probability of incumbents from the most popular party being elected is estimated to be only 2 percentage points higher than that of their co-partisans in the race. This makes sense, since as discussed earlier, all candidates from the most popular party are almost assured to win a seat, regardless of their individual characteristics. Historically, only 7 percent of the candidates from the most popular party did not get elected.

All told, the advantage of incumbents in Spanish senatorial elections is estimated to be responsible for the reelection of 81 senators out of the 731 that were reelected in this time period. However, if we only look at vulnerable senators, that is senators from the most popular party, we find that their estimated incumbency advantage is responsible for the reelection of 76 of them, out of the 184 reelected.

Table 3.1: Incumbency Advantage of Top Two Parties in Spanish Senatorial Elections, 1977-2008

	Races Analyzed					
	All Races		All Symmetric Races		Symmetric Races where Top Two Parties Captured $\geq 80\%$ Vote Share	
	Dependent Variable		Dependent Variable		Dependent Variable	
	Vote Share	Elected	Two-Party Vote Share	Elected	Two-Party Vote Share	Elected
All Incumbents	<b>.0067</b> (.0008)	<b>.2481</b> (.0198)	<b>.0091</b> (.0008)	<b>.2471</b> (.0207)	<b>.0077</b> (.0008)	<b>.2688</b> (.0278)
First Most Popular Party Incumbents	<b>.0048</b> (.0008)	<b>.0211</b> (.0087)	<b>.0073</b> (.0011)	<b>.0226</b> (.0093)	<b>.0049</b> (.0011)	.0032 (.0070)
Second Most Popular Party Incumbents	<b>.0095</b> (.0007)	<b>.5617</b> (.0432)	<b>.0116</b> (.0009)	<b>.5497</b> (.0447)	<b>.0112</b> (.0010)	<b>.5969</b> (.0570)
Observations	1,583	1,583	1,498	1,498	853	853

Notes: Symmetric races are races where the two top parties nominated as many candidates as number of votes allowed per citizen. The baseline category are the co-partisan non-incumbents in the same race. All regressions include fixed effects for each combination of year, district, and party. See formula 3.1 for a complete description of the linear model used. Block bootstrap standard errors with 10,000 simulations are used throughout. Coefficients significant at the 95% level are shown in bold.

These results remain substantially the same whether we analyze the candidate's overall vote share or the vote share received by the candidates out of the number of votes received by the top

two parties in the district.<sup>20</sup> Likewise, it makes little difference whether we focus on all the races or whether we limit ourselves to those races in which the two most popular parties captured at least 80 percent of the vote. (This can be seen by comparing the results from the different columns in Table 3.1.)

### 3.4.1 BALLOT POSITION EFFECTS

After the first few elections of Spain’s new democracy, scholars noticed that the position of a candidate on the ballot for the Senate had a substantial effect on the candidate’s electoral outcome (Lijphart and López Pintor, 1988). Candidates positioned further up the list were found to systematically fare much better than those further down. This was true regardless of whether the candidates were grouped by party.<sup>21</sup>

Spanish senatorial elections are not unique in this regard. Scholars have found in many other elections that the position of the candidates on the ballot can have an effect on their electoral success.<sup>22</sup> The so-called ballot position effects derive from the fact that the uninformed or unengaged electorate tends to vote for the first person on the ballot, since they do not have the information necessary to distinguish between the candidates in any other way. If there are multiple candidates for each party, as is the case in the Spanish elections to the Senate, the first candidate listed for each party will tend to do better than the last candidate listed for that same party. The idea here is that the electorate might have strong party preferences but might not have enough information to have an opinion about the different candidates from the same party.

Using a similar methodology as was used to estimate the advantage of incumbents, we can estimate the ballot position effects for the period under study.<sup>23</sup> As shown in Table 3.2, I find

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<sup>20</sup>Note that to compute this variable, we need to limit ourself to races that are so-called “symmetric,” defined as races where both major parties nominate as many candidates as votes allowed per citizen.

<sup>21</sup>As mentioned earlier, starting in 1986 the ballot went from listing all candidates in alphabetical order, regardless of party affiliation, to grouping candidates by parties and then listing them in alphabetical order within each party.

<sup>22</sup>There is an extensive literature on the subject matter. See for example Brook and Upton (1974); Upton and Brook (1974); Robson and Walsh (1974); Taebel (1975); Upton and Brook (1975); Kelley and McAllister (1984); Darcy (1986); Bowler, Donovan and Happ (1992); Darcy (1998).

<sup>23</sup>In these analyses, instead of using a dummy indicating who the incumbents are, we simply have two dummies, one indicating whether the candidate was listed first and another indicating whether the candidate was listed third. I use the same dependent variables and continue to use fixed effects for every combination of year, district, and party. As before, I limit the analysis to the top two parties in the districts.

strong ballot position effects in Spanish senatorial elections. From 1977 to 2008, being positioned first on the ballot, compared to being positioned second, is estimated to increase a candidate's vote share by 1 percentage point on average. This translates into an increased probability of being elected of 35 percentage points. Once again, if we distinguish among candidates based on party popularity, we find that ballot position effects have much larger consequences for candidates from the second most popular party than for those from the most popular party in the district. Being placed first on the ballot, as opposed to being placed second, increases the probability of being elected by only 4 percentage points for candidates from the most popular party but by fully 66 percentage points for candidates from the second most popular party. Again, this disparity makes sense since candidates from the most popular party are already very likely to win, so an extra percentage point of the vote share makes little difference.<sup>24</sup>

Table 3.2: Ballot Position Effects in Spanish Senatorial Elections, 1977-2008

	Dependent Variable	
	Vote Share	Elected
<i>All Candidates from Top Two Parties</i>		
- First on the Ballot	<b>.0100</b> (.0007)	<b>.3488</b> (.0130)
- Third on the Ballot	<b>-.0060</b> (.0009)	<b>-.0541</b> (.0114)
<i>First Most Popular Party Candidates</i>		
- First on the Ballot	<b>.0104</b> (.0012)	<b>.0376</b> (.0100)
- Third on the Ballot	<b>-.0068</b> (.0012)	<b>-.0434</b> (.0104)
<i>Second Most Popular Party Candidates</i>		
- First on the Ballot	<b>.0095</b> (.0006)	<b>.6616</b> (.0258)
- Third on the Ballot	<b>-.0053</b> (.0010)	<b>-.0732</b> (.0173)

Notes: The baseline category are the co-partisans in the same race that are listed second on the ballot. All regressions include fixed effects for each combination of year, district, and party. Block bootstrap standard errors with 10,000 simulations are used throughout. Coefficients significant at the 95% level are shown in bold.

<sup>24</sup>Note that being moved further down the list, from second to third, also has some negative effects on the candidate's vote share but the magnitude of such effects are much smaller than those going from first to second. For details see Table 3.2.

The effects of ballot position on a candidate's vote share is estimated to be the same regardless of whether the party has an incumbent running. Table 3.3 shows the estimated ballot position effects for all the two most popular parties as well as for only those that had no incumbents running. The differences between the estimates are not statistically significant. This suggests that the estimated ballot position effects are not driven by the strategic position of incumbents on the ballot. The data is consistent, therefore, with the assumption of no interaction effect at the individual level between incumbency and ballot position.

Table 3.3: Ballot Position Effects by Party Type, 1977-2008

	Dependent Variable: Vote Share	
	Parties Analyzed	
	All Top Two Parties	Only Top Two Parties Without Incumbents
<i>All Candidates</i>		
- First on the Ballot	<b>.0100</b> (.0007)	<b>.0096</b> (.0016)
- Third on the Ballot	<b>-.0060</b> (.0009)	<b>-.0076</b> (.0020)
<i>First Most Popular Party Candidates</i>		
- First on the Ballot	<b>.0104</b> (.0012)	<b>.0106</b> (.0037)
- Third on the Ballot	<b>-.0068</b> (.0012)	<b>-.0104</b> (.0038)
<i>Second Most Popular Party Candidates</i>		
- First on the Ballot	<b>.0095</b> (.0006)	<b>.0091</b> (.0009)
- Third on the Ballot	<b>-.0053</b> (.0010)	<b>-.0059</b> (.0018)

Notes: The baseline category are the co-partisans in the same race that are listed second on the ballot. All regressions include fixed effects for each combination of year, district, and party. Block bootstrap standard errors with 10,000 simulations are used throughout. Coefficients significant at the 95% level are shown in bold.

### 3.4.2 PARTIES' STRATEGIC BEHAVIOR

Scholars were not the only ones who noticed the effects of ballot positioning on electoral outcomes. Based on the evidence presented here and interviews with party leaders, it seems that after the

first few elections, the parties became aware of it too and started to exploit this phenomenon to help reelect their most vulnerable incumbents.<sup>25</sup>

The nomination of candidates for Spanish national elections is controlled by the parties (Montabes and Ortega, 1999). Through a centralized process, parties nominate candidates for both the Senate and the Congress of Deputies.<sup>26</sup> Parties are known to wield this power to enforce party discipline among legislators (Field, 2006), and they seem not to be reluctant to use it. For example, in the time period under study, only 50% of the senators ended up running for reelection.

Based on interviews with party leaders, only incumbents who please their party while in office are nominated to run again once the term is up. It seems, then, that in the context of the Spanish Senate, the main electoral benefit of serving in office is the opportunity to show one's party leaders that one can legislate in accordance with their wishes. Given the low interest of the public and the importance of one's party affiliation, senators who wish to remain in office will work to please their party. Unlike in other democracies, such as the U.S., the main constituency for senators is not voters but their own party leaders.

Once an incumbent is chosen to run for reelection, however, it is in the parties' interest to help him or her succeed.<sup>27</sup> As noted before, candidates from the most popular party in each district have a high probability of being elected. Incumbents from these parties are quite safe and do not require assistance. However, the same cannot be said about the candidates from the second most popular party. Most of the time, only one of these candidates will win a seat, and almost always, it will be the candidate from the party who is listed first on the ballot.<sup>28</sup> Ballot positioning for these candidates is, thus, of the highest importance. Given that the order of the candidates on the ballot was done alphabetically during the period studied, if the party leaders involved in the candidate selection process wanted to help vulnerable incumbents get reelected, they had to choose

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<sup>25</sup>During the 2011 electoral campaign, I conducted several interviews of party leaders involved in the candidate nomination process from the major parties in Spain. In addition, I interviewed senators, campaign managers, and political journalists.

<sup>26</sup>Even though the major parties in Spain utilize some sort of primary system in order to gauge the popularity of the candidates among the rank and file members at the local level, the ultimate decision-making power resides with the party leaders.

<sup>27</sup>After all, if party leaders decide to nominate an incumbent to run for reelection it is because they are pleased with their performance.

<sup>28</sup>This is true 89% of the time.



the running mates of the incumbents with last names further down the alphabet. This type of strategic nominating behavior was suspected by Montabes and Ortega (2002), who analyzed the 2000 Spanish senatorial elections and found that despite the alphabetical rule, incumbents were disproportionately positioned first on the ballot, especially when they were in vulnerable positions.<sup>29</sup>

Table 3.4: Likelihood of Ballot Position by Candidate and Party Types, 1979-2008

	Dependent Variable	
	First On the Ballot	Third On the Ballot
<i>One Incumbent Running from the Party (n=1,148)</i>		
All Incumbents	<b>.4016</b> (.0372)	<b>-.2124</b> (.0280)
First Most Popular Party Incumbents	<b>.2263</b> (.0547)	<b>-.1053</b> (.0456)
Second Most Popular Party Incumbents	<b>.5714</b> (.0483)	<b>-.3163</b> (.0321)
Difference Between the Two	<b>-.3451</b> (.0730)	<b>.2111</b> (.0563)
<i>Two Incumbents Running from the Party (n=435)</i>		
All Incumbents	.0759 (.0568)	-.0586 (.0604)
First Most Popular Party Incumbents	.0424 (.0641)	-.0466 (.0674)
Second Most Popular Party Incumbents	.2222 (.1140)	-.1111 (.1426)
Difference Between the Two	-.1798 (.1298)	.0645 (.1585)

Notes: The baseline category are the co-partisan non-incumbents in the same race. All regressions include fixed effects for each combination of year, district, and party. Throughout, block bootstrap standard errors with 10,000 simulations are used. Coefficients significant at the 95% level are shown in bold.

More generally, we can find evidence of the parties' strategic placement of incumbents on the ballot (see Table 3.4). Incumbents are much more likely to be placed first on the ballot and less likely to be placed third than their non-incumbent co-partisans across the board. Further, we find stronger differences in probabilities between incumbents and non-incumbents in parties that are

<sup>29</sup>Bagues and Esteve-Volart (2012) argued a similar exploitation of the nomination process. They argued that parties were choosing female candidates based on their last name, in order to ensure that they be placed on disadvantageous positions on the ballot.

likely to only gain one seat. As shown in Table 3.4, incumbents from the second most popular party are 57 percentage points more likely to be placed first on the ballot than their co-partisan counterparts, while incumbents from the most popular party are 23 percentage points more likely to be placed first on the ballot than the non-incumbents running from the same party in the same race. These two coefficients are statistically different from each other. Similarly, incumbents from the second most popular party are 32 percentage points less likely to be placed third on the ballot than their non-incumbent co-partisans, while incumbents from the most popular party are only 11 percentage points less likely to be placed third on the ballot than their running mates.<sup>30</sup>

We can see a similar story presented graphically in Figure 3.2, which shows the different distribution of last names for incumbents and non-incumbents of these two types of parties. As incumbents are more vulnerable in the second most popular parties in the district, their running mates tend to have last names that come from the last half of the alphabet. Far less skewed is the distribution of last names of candidates running with incumbents who are more likely to retain their seats, that is, those from the most popular party.

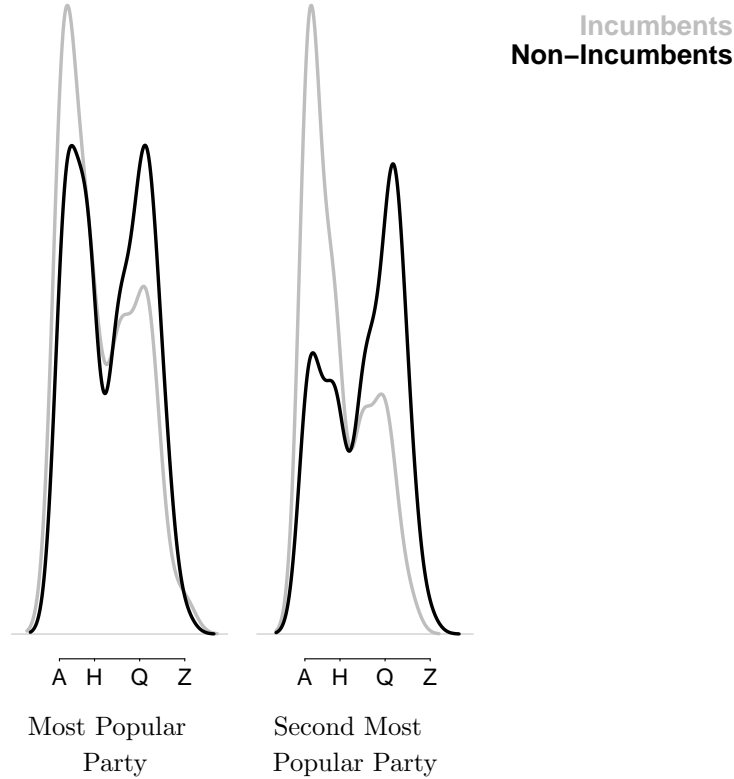
Lastly, these results are consistent with information collected in interviews with party leaders involved in the candidate nomination process from the major parties in Spain. The current Secretary General of the “Partido Popular” in Barcelona stated it clearly: “The order of the candidates on the ballot is very important. [When the ballot order was alphabetical,] the last name of the incumbent used to condition who his or her running mates could be. Choosing the running mates of vulnerable incumbents based on last name was a practice that *all* political parties used to engage in. It simply made sense. It was logical.”<sup>31</sup> Because in 2010 the alphabetic ordering was eliminated to give parties the power to decide the ordering themselves, parties no longer need to engage in such behavior.

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<sup>30</sup>These are the statistics for parties that have only one incumbent running. Similar distinctions are found when two incumbents are running, although the coefficients are much smaller. In addition, given the small number of observations in these regressions, the coefficients are also not statistically significant.

<sup>31</sup>Quote in translation.

Figure 3.2: Distribution of Last Names by Incumbency Status and Party Popularity



#### 3.4.3 STRATEGIC BALLOT POSITIONING AS A SOURCE OF INCUMBENCY ADVANTAGE

Using the methodology described earlier, we can explore the extent to which the observed incumbency advantage in Spanish senatorial elections derives from the mechanism of strategic ballot positioning of vulnerable incumbents.

Table 3.5 shows the decomposition of the total incumbency advantage into direct and indirect effects; the indirect effects are the mechanism specific path that we are interested in as they are the effects that incumbency has on electoral outcomes through candidate ballot position. Based on these analyses, I find that the strategic position of incumbents on the ballot accounts for more than half of the observed incumbency advantage of the senators in the two most popular parties in Spain (.35 percentage points out of .67).

As this strategy is particularly used to help vulnerable incumbents, we should expect the effect to be larger for incumbents from the second most popular party than for incumbents from the most popular party. Table 3.5 shows that this is indeed the case. The strategic placement of incumbents

on the ballot explains .56 percentage points of the advantage of incumbents from the second most popular party, but only .20 percentage points of the advantage of incumbents from the most popular party. The difference between these two coefficients is statistically significant at the 95% level.

Table 3.5: Decomposition of Incumbency Advantage in Direct and Indirect Effects, 1979-2008

	Dependent Variable					
	Vote Share			Elected		
	Total Effect	Direct Effect	Indirect Effect	Total Effect	Direct Effect	Indirect Effect
All Incumbents	<b>.0067</b> (.0008)	<b>.0032</b> (.0004)	<b>.0035</b> (.0004)	<b>.2481</b> (.0198)	<b>.0741</b> (.0177)	<b>.1740</b> (.0185)
First Most Popular Party Incumbents	<b>.0048</b> (.0008)	<b>.0028</b> (.0006)	<b>.0020</b> (.0006)	<b>.0211</b> (.0087)	.0157 (.0083)	<b>.0054</b> (.0023)
Second Most Popular Party Incumbents	<b>.0095</b> (.0007)	<b>.0039</b> (.0006)	<b>.0056</b> (.0006)	<b>.5617</b> (.0432)	<b>.1839</b> (.0476)	<b>.3778</b> (.0411)
Difference Between the Two	<b>-.0047</b> (.0010)	-.0011 (.0008)	<b>-.0036</b> (.0008)	<b>-.5406</b> (.0446)	<b>-.1682</b> (.0482)	<b>-.3724</b> (.0412)

Notes: The baseline category are the co-partisan non-incumbents in the same race. See formula (1) for a description of the linear model used to estimate the total effects. See formula (2) for a description of the linear model used to estimate the direct effects. The indirect effects - the mechanism specific path - are the difference between the direct and total effects. All regressions include fixed effects for each combination of year, district, and party. Throughout, block bootstrap standard errors with 10,000 simulations are used. Coefficients significant at the 95% level are shown in bold.

The evidence is even clearer once we consider that this practice did not begin in earnest until after the first few elections. As shown in Table 3.6, for incumbents from the two most popular parties, placement on the ballot is an insignificant amount of the incumbency advantage observed in elections before 1989, while placement on the ballot explains almost all of the advantage in later elections.<sup>32</sup> Ballot positioning accounts for only .12 percentage points of the advantage of .79 observed before 1989, but it accounts for .50 percentage points out of the advantage of .62 observed from 1989 to 2008. The indirect effects of incumbency on electoral outcomes through candidate

<sup>32</sup>The year 1989 is chosen as the cut-off point because qualitatively it is around the time that the parties claim to have started this strategic behavior. In addition, the data presents a structural break on that year, based on Wald tests.

ballot placement is found not to be statistically significant before 1989, regardless of the popularity of the party.<sup>33</sup>

Table 3.6: Composition of Incumbency Advantage in Two Time Periods: 1979-86 and 1989-2008

	Dependent Variable					
	Vote Share			Elected		
	Total Effect	Direct Effect	Indirect Effect	Total Effect	Direct Effect	Indirect Effect
<i>Elections from 1979 to 1986</i>						
All Incumbents	<b>.0079</b> (.0016)	<b>.0067</b> (.0012)	.0012 (.0009)	<b>.1625</b> (.0340)	<b>.1234</b> (.0324)	.0391 (.0236)
Most Popular Party Incumbents	<b>.0077</b> (.0019)	<b>.0067</b> (.0014)	.0009 (.0011)	<b>.0441</b> (.0151)	<b>.0424</b> (.0152)	.0017 (.0046)
Second Most Popular Party Incumbents	<b>.0084</b> (.0020)	<b>.0067</b> (.0015)	.0017 (.0010)	<b>.3655</b> (.0864)	<b>.2675</b> (.0857)	.0980 (.0591)
Difference Between the Two	-.0007 (.0021)	.0000 (.0017)	-.0008 (.0012)	<b>-.3214</b> (.0879)	<b>-.2251</b> (.0878)	-.0963 (.0587)
<i>Elections from 1989 to 2008</i>						
All Incumbents	<b>.0062</b> (.0006)	<b>.0012</b> (.0004)	<b>.0050</b> (.0005)	<b>.2855</b> (.0236)	.0293 (.0168)	<b>.2562</b> (.0242)
Most Popular Party Incumbents	<b>.0033</b> (.0008)	.0009 (.0006)	<b>.0024</b> (.0006)	.0097 (.0096)	.0024 (.0099)	<b>.0073</b> (.0036)
Second Most Popular Party Incumbents	<b>.0098</b> (.0008)	<b>.0017</b> (.0006)	<b>.0081</b> (.0008)	<b>.6330</b> (.0423)	.0870 (.0454)	<b>.5460</b> (.0501)
Difference Between the Two	<b>-.0065</b> (.0012)	-.0008 (.0008)	<b>-.0057</b> (.0010)	<b>-.6233</b> (.0441)	-.0846 (.0459)	<b>-.5387</b> (.0500)

Notes: The baseline category are the co-partisan non-incumbents in the same race. See formula (1) for a description of the model used to estimate the total effects. See formula (2) for a description of the model used to estimate the direct effects. The indirect effects—the mechanism specific path—are the difference between the direct and total effects. All regressions include fixed effects for each combination of year, district, and party. Throughout, block bootstrap standard errors with 10,000 simulations are used. Coefficients significant at the 95% level are shown in bold.

If we focus on the years when this practice was prevalent, we find stronger evidence that this mechanism was particularly used to favor the more vulnerable incumbents. For incumbents of the

<sup>33</sup>During the first few elections in Spain, party leaders had yet to realize the importance of ballot position, however, incumbents are nevertheless found to have a statistically significant advantage over their co-partisan counterparts. Based on conversations with party leaders, the incumbency advantage of the first few elections was due to the popularity of the candidates themselves as well as a more candidate-centered campaigns. The first few elections were more candidate-centered because (a) the parties were still forming and were not yet known entities to the electorate (in other words, they did not have a brand name yet), (b) the Senate was still taken as a serious legislative chamber and thus citizens paid attention to their elections, and (c) the candidates were popular figures, for the most part.

second most popular party, ballot position accounts for .81 percentage points out of their estimated advantage of .98 percentage points. For incumbents of the most popular party, it accounts for .24 percentage points out of their estimated advantage of .33. The indirect effects for the two types of parties are statistically different from each other at the 95% level.

In terms of the probability of being elected during this period, incumbents from the most popular party are found to have no statistically significant advantage over their co-partisans. Incumbents from the second most popular party, however, are estimated to be 63 percentage points more likely to be elected than their running mates, and most of their advantage is estimated to derive from their strategic placement on the ballot.

In summary, we find strong evidence that, after the first few elections, Spanish parties nominated the running mates of vulnerable incumbents based on their last name in order to boost the incumbents' prospects for re-election. This strategic party behavior is found to be the main source of the observed incumbency advantage in the elections between 1989 and 2008. The remaining observed incumbency advantage, measured by the direct effects, is small and more often than not insignificant, and it might simply be due to the quality differential between the candidates. As some of the incumbents' running mates were chosen based primarily on last name, their quality as politicians might not be comparable to that of the incumbents.

### 3.5 CONCLUSION

The literature on the sources of incumbency advantage has focused primarily on the actions of individual politicians and, for the most part, neglected activities in which parties engage to boost the electoral chances of their affiliated incumbents. Based on the literature on political parties, however, it is reasonable to expect parties to help their incumbents get reelected. Parties might be behind some of the incumbents' advantage over their challengers, especially in elections where the stakes are high and parties are powerful. In this paper, I find evidence of a meaningful incumbency advantage created not by the actions of the incumbents themselves but by the actions of their parties.

In particular, I study elections to the Spanish Senate, a context in which the commonly studied sources of incumbency advantage are not likely to be present. Using the method introduced by

Hirano and Snyder (2009), I estimate the incumbency advantage of senators from 1979 to 2008. Exploiting the multimember district system of the Senate in Spain, I compare the electoral outcomes of incumbents to those of non-incumbents from the same party running in the same race, and estimate the effects of the incumbent's office holder benefits and quality differential on electoral outcomes.

I find a small but significant incumbency advantage, estimated to increase the probability of all incumbents being reelected by almost 25 percentage points but that of vulnerable incumbents by more than 50 percentage points. I also find that the main source of such advantage derives from the behavior of the parties, which help their more vulnerable senators get reelected by ensuring that they be placed first on the ballot. Since during the elections studied the law stipulated that candidates be ordered on the ballot alphabetically, in order to ensure that incumbents be placed first, parties had to nominate other candidates with last names further down the alphabet.

As the findings of this paper suggest, parties have an incentive to use whatever resources are available to help their incumbents remain in power, especially those in vulnerable positions. To this end, parties might supply organizational support, help with fundraising, coordinate public endorsements, discourage talented within-party challengers, provide key promotions, and offer high-profile appointments, among others. The case of the Spanish Senate is likely just the tip of the iceberg since their elections have relatively low stakes, and more research is needed to fully understand the role of parties in causing the incumbency advantage observed in other developed countries.

# 4

## CHALLENGER QUALITY AND THE INCUMBENCY ADVANTAGE

The incumbency advantage is an important phenomenon in U.S. politics, but even after years of study it is not clear what it represents. Theoretically, scholars have pointed to three main factors: (i) incumbents might be of higher “quality” than the average candidate, (ii) holding office might provide resources to incumbents, which they can use to win votes, and (iii) challengers who run against incumbents might be of lower “quality” than the average politician. Decomposing the incumbency is important for normative reasons as well as positive reasons. If the incumbency advantage is mainly caused by factor (iii) – for example, because high-quality candidates tend to wait for open seats – then it may indicate a sub-optimal degree of competition in the electoral system and possibly a need for reform. On the other hand, if the incumbency advantage is mainly due to factor (i) – for example, because on-the-job learning occurs in politics as in other jobs – then it might reflect a desirable outcome of a well-functioning electoral system.

Many scholars have attempted to estimate the magnitude of the different components of the incumbency advantage.<sup>1</sup> One reason it is difficult to estimate the size of component (iii) is that it is difficult to estimate the effect of facing a quality challenger in the race, which is one of the key

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<sup>1</sup>A number of papers – e.g. Erikson (1971), Cover and Mayhew (1977), Nelson (1978), Payne (1980), Alford and Brady (1989), Gelman and King (1990) – focus on estimating the aggregate incumbency advantage. While they recognize that the incumbency advantage may be due to a variety of factors, they focus on the aggregate estimate and do not attempt to decompose it. Other papers, including Johannes and McAdams (1981), Levitt and Wolfram (1997), Cox and Katz (1996), Ansolabehere, Snyder and Stewart (2000), and Hirano and Snyder (2009), attempt to decompose the incumbency advantage in various ways. For example, Cox and Katz (1996) attempt to disaggregate the incumbency advantage into “direct,” “scare-off,” and “quality” effects. In addition, a number of papers in the literature on campaign finance also provide a decomposition of the incumbency advantage by isolating the effect of campaign spending on election outcomes independent of both incumbency and challenger quality. These papers include Jacobson (1980), Abramowitz (1988), Green and Krasno (1988), and Gerber (1998). However, none of these papers deal explicitly with the problem of strategic challenger entry in the estimation.



parameters needed for its estimation.<sup>2</sup> If high-quality challengers tend to wait until incumbents retire or get into trouble to run for a seat – e.g. because they are especially strategic in their behavior – then the observed sample will be skewed toward races where high-quality challengers face weak incumbents. Similarly, if the challengers who decide to run against stronger incumbents are mainly low-quality – because they are less strategic, i.e., less sensitive to their chances of success – then, again, the sample we observe will be skewed toward races where incumbents face low-quality challengers.<sup>3</sup>

This strategic thinking on the part of the potential challengers seems particularly plausible in light of the fact that one of the best measures of candidate quality is previous officeholder experience. Intuitively, many of the strongest candidates are elected officials who hold offices similar to those they are seeking and with similar constituencies – e.g., state legislators running for the U.S. House, state representatives running for the state senate, or state attorneys general running for governor. Given that current officeholders face a high opportunity cost of running for higher office, since they typically must give up their current office in order to do so, they are probably likely to wait for their odds of success to be high (e.g., for the incumbent to retire or get in trouble, or for their party to be strongly favored). Not surprisingly, then, previous empirical work has found strong evidence of strategic challenger behavior.<sup>4</sup>

If high-quality challengers, such as current officeholders, exhibit strategic entry behavior, then conventional OLS estimates of the effect of challenger quality on electoral success and of the incumbency advantage may be biased since challenger quality may be endogenous to the vote. To account for this possibility, we adopt an alternative approach. We use term limits as an instrument for challenger quality. Politicians who are term-limited cannot exercise one of their most popular

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<sup>2</sup>The other component is the effect incumbency has on the probability of facing a quality opponent. Several theoretical papers formalize the scare-off effect. See, for example, Banks and Kiewiet (1989), Epstein and Zemsky (1995), Gordon, Huber and Landa (2007), and Ashworth and Bueno de Mesquita (2008).

<sup>3</sup>Another potential problem arises if low-quality incumbents tend to retire, since we would not observe what would have happened to them had they run. Instead, the observed sample will be skewed toward high-quality incumbents, who do well in their re-election attempts in large part because they are high-quality, not because they are incumbents. Ansolabehere and Snyder (2004) investigate the issue of incumbents' strategic retirement and conclude that it does not significantly bias the estimated incumbency advantage. We, therefore, do not incorporate this in our analysis.

<sup>4</sup>Relevant papers include Jacobson and Kernell (1983), Bianco (1984), Bond, Covington and Fleisher (1985), Krasno and Green (1988), Jacobson (1989), Stone, Maisel and Maestas (2004), Kiewiet and Zeng (1993), Carson, Engstrom and Roberts (2007), and Carson and Roberts (2013).

options – running again for the office they currently hold – and must either run for a different office or temporarily retire from politics. As a result, many term-limited candidates run for another office when they would not otherwise. This yields an exogenous source of variation in the presence of quality challengers, and therefore a plausible instrument.<sup>5</sup>

More specifically, in this paper, we study state senate elections, and measure challenger quality in terms of previous experience as a state representative. We then use the number of term-limited state representatives who reside in a given state senate district as an instrument for the presence of a high-quality challenger.<sup>6</sup> We find that the instrumental variables (IV) estimates are similar to the OLS estimates. Most importantly, using IV does not substantially reduce the estimated incumbency advantage. It also does not substantially reduce the estimated effect of challenger quality. In fact, the IV estimates of the incumbency advantage and the effect of challenger quality are both slightly larger than the corresponding OLS estimates.

We also show that the instrumental variables are quite strong in the first-stage. Thus, although we find evidence of strategic behavior by experienced challengers (consistent with previous studies), this behavior does not seem to bias the second stage estimates. Why not? Evidently, the strategic choices by experienced challengers are not driven by unmeasured variation in incumbent quality. That is, high quality incumbents and low quality incumbents are, to a first approximation, equally able to scare off experienced challengers. Strategic choices are important, but they appear to depend mainly on variables that are measured fairly accurately, such as district safety, partisan tides, and incumbency status *per se*. In addition, decisions about whether to run for re-election and when to run for another office are probably driven by a variety of idiosyncratic factors – outside employment opportunities, family issues, health, age, the drudgery of campaigning, and, perhaps most importantly, satisfaction or lack of satisfaction with political life and overall political ambition.

Overall, then, our findings indicate that – at least for the case of state legislatures – strategic challenger entry is less of a problem in estimating the incumbency advantage than has been previously thought. In addition, using our estimates, we find that between 30 and 40 percent of the

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<sup>5</sup>The argument is similar to that in Ansolabehere and Snyder (2004), which uses term limits to construct instrumental variables for incumbents, but not for challengers.

<sup>6</sup>Intuitively, the greater the number of term-limited Democratic (Republican) representatives residing within the boundaries of a senate district, the greater the probability of the Republican (Democratic) senate incumbent being challenged by a quality challenger in the form of a term-limited representative.

incumbency advantage in state legislative races is the result of “scaring off” experienced challengers; an estimate consistent with the literature.

#### 4.1 METHODS AND DATA

Let us consider the model typically used to estimate the incumbency advantage, which decomposes the two-party vote share into incumbency effects, challenger quality effects, the normal party vote, and national swings:

$$V_{it} = \beta_1 I_{it} + \beta_2 Q_{it} + \beta_3 N_{it} + \theta_t + \epsilon_{it} \quad (4.1)$$

where:

- $V_{it}$  is the two-party vote-share received by the Democratic candidate in district  $i$  at time  $t$ .
- $I_{it}$  equals 1 if a Democratic incumbent runs for reelection in district  $i$  at time  $t$ , - 1 if a Republican incumbent is seeking reelection, and 0 if no incumbent runs.
- $Q_{it}$  equals 1 if there is a Republican, high-quality candidate in the race (excluding the incumbent), -1 if there is a Democratic, high-quality candidate in the race (excluding the incumbent), 0 if either the challenger to the incumbent is not high-quality, or both or none of the candidates in the open race are high-quality.
- $N_{it}$  is the normal vote, capturing the underlying division of partisan loyalties in district  $i$  at time  $t$ .
- $\theta_t$  are time fixed effects, which capture the partisan tides at each time  $t$ .
- $\epsilon_{it}$  are the usual residuals.

Note that  $Q_{it}$  is constructed so that we expect  $\beta_2 < 0$ . For example, the presence of a quality Republican challenger in the race (i.e.,  $Q_{it}=1$ ) should decrease the vote-share received by the Democratic candidate (i.e.,  $\beta_2 \times 1$  should result in a decrease of  $V_{it}$ , therefore we expect  $\beta_2$  to be negative). Similarly, the presence of a quality Democratic challenger in the race (i.e.,  $Q_{it}=-1$ ) should increase the vote-share received by the Democratic candidate (i.e.,  $\beta_2 \times (-1)$  should result in a positive change of  $V_{it}$ ; therefore we expect  $\beta_2$  to be negative).

Notice that this model does not account for the strategic entry of quality challengers. The presence of a quality challenger in the race is, however, likely to be correlated with both the presence of an incumbent seeking reelection as well as with the incumbent's a priori expected performance in the polls. In other words, prospective quality challengers might choose only to run when either there is no incumbent or the incumbent defending his or her seat is perceived as electorally weak and expected to lose in the upcoming election. This would create a situation in which the presence of a quality challenger ( $Q_{it}$ ) would be correlated with the incumbent's electoral weakness (call it  $W_{it}$ ), which in turn is a determinant of our dependent variable ( $V_{it}$ ). Failing to control for  $W_{it}$  would bias our estimates of the effect of facing a quality challenger ( $\hat{\beta}_2$ ).<sup>7</sup> Intuitively, if we only observe high-quality challengers when incumbents are weak and we do not control for such weakness, then we will be assuming that the positive results achieved by the challenger are all due to his being a quality candidate and not to the incumbent's lack of strength. On the other hand, if the only quality candidates that decide to face the incumbent are those of lesser quality and with less to lose, then we would be underestimating the effect that a more representative quality challenger would have on the electoral outcome. In short, this model, which for practical matters we will call the OLS model, produces biased estimates of the effect of quality challengers and, as a result, it also produces biased estimates of the incumbency advantage because it fails to adequately control for the presence of quality challengers in the race.

To be able to estimate the effect of quality challengers without this type of omitted variable bias, we use an instrumental variable analysis by taking advantage of the exogenous increase of quality challengers produced by term limits in state legislatures.<sup>8</sup> More specifically, we use the number of term-limited state representatives to instrument for the presence of quality challengers in the state upper house elections. The idea is the following. Usually the costs of running for higher office are rather large since state lower house members are usually required to give up their current office in order to do so. When they become term-limited, however, the option of staying put is no longer available and, thus, the costs of running for the state's upper house decrease substantially. In these

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<sup>7</sup>The stylized vote share model that would capture this would be as follows:  $V_{it} = \beta'_1 I_{it} + \beta'_2 Q_{it} + \beta'_3 N_{it} + \beta'_4 W_{it} + \theta'_i + \epsilon'_{it}$ . When estimating equation (1) then,  $\epsilon_{it} = \beta'_4 W_{it} + \epsilon'_{it}$ , where  $W_{it}$  is correlated with  $Q_{it}$ . Omitting  $W_{it}$  from the model, makes the estimate of the effect of quality challengers ( $\beta_2$ ) suffer from omitted variable bias.

<sup>8</sup>We follow Ansolabehere and Snyder (2004) in using term limits as an instrumental variable.

circumstances, we expect a higher number of high-quality candidates to decide to challenge the incumbent than they would have otherwise. The number of term-limited representatives residing within a senate district can, thus, help predict the presence of a quality challenger for that senate district.

Statistically, we follow a two-stage least squares framework, and estimate the following system:

$$\begin{aligned} V_{it} &= \beta_1 I_{it} + \beta_2 Q_{it} + \beta_3 N_{it} + \theta_t + \epsilon_{it} && \text{(Second Stage)} \\ Q_{it} &= \alpha_1 T_{it}^D + \alpha_2 T_{it}^R (+\alpha_3 T2_{it}^D + \alpha_4 T2_{it}^R) + \alpha_5 I_{it} + \alpha_6 N_{it} + \gamma_t + \mu_{it} && \text{(First Stage)} \end{aligned} \quad (4.2)$$

where the new variables are:

- $T_{it}^D$  and  $T_{it}^R$  are the number of term-limited Democratic and Republican representatives residing in senate district  $i$  at time  $t$ . Since we study general elections, we instrument for challenger quality from the opposite party when there is an incumbent present. In other words, we ignore the number of term-limited Democrats when instrumenting for challengers of a Democratic incumbent. Similarly, we ignore the number of term-limited Republicans when we instrument for challengers of a Republican incumbent. Mathematically, this means that we set  $T_{it}^D = 0$  when  $I_{it} = 1$  and, likewise, set  $T_{it}^R = 0$  when  $I_{it} = -1$ .
- Because state lower house terms do not always coincide with state upper house terms, we also need to consider the state representatives that are term-limited two years prior to the election of their corresponding upper house seat. To capture these representatives we created two additional instruments:  $T2_{it}^D$  and  $T2_{it}^R$ . For simplicity sake, we perform the analysis with and without these extra set of instruments. We call the one without: IV (i), and the one with: IV (ii).

The top equation is simply equation 4.1 above. The bottom equation is the first stage, in which we predict challenger quality using the number of term-limited representatives by party, as well as an indicator for incumbency, a measure of the normal vote, and time fixed effects.

The key identifying assumption is that  $T_{it}^D$  and  $T_{it}^R$  (and  $T2_{it}^D$  and  $T2_{it}^R$ , for that matter) are uncorrelated with  $W_{it}$  – i.e., the number of term-limited representatives eligible to run in a given senate district in a given year is not correlated with the unmeasured weakness of the incumbent

state senator in that district that year. This seems plausible. For example, term limits were imposed well before any of the races in our sample.

Our analysis, then, focuses on the general elections for the upper houses from 2002 to 2010 in eleven states that had legislative term limit laws in place during this period.<sup>9</sup> We begin in 2002 to avoid crossing major redistricting episodes and we focus on senate races because state legislators' moves from the lower to the upper houses are a lot more common than moves from the upper to the lower houses.

In regards to the construction of our variables, we follow previous work and define challenger quality in terms of prior officeholder experience. More specifically, since we focus on state senate elections, we identify as quality challengers those who currently are or have been state representatives at some point during the last ten years.<sup>10</sup>

To measure the normal vote we use two standard approaches from the existing literature: (i) district fixed effects (Levitt and Wolfram 1997), and (ii) lagged vote share together with lagged party control (Gelman and King 1990).<sup>11</sup> Although the choice of specification does not affect our conclusions, the estimated coefficient on the *Incumbency Status* dummy is consistently larger in the specification that uses lagged vote; this may be due to selection bias from dropping cases that were uncontested in the previous election (that is, where there is no observation for lagged vote).

In order to construct our instruments, we identify the number of term-limited state representatives eligible to run for each senate district. Matching representatives to senate districts is chal-

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<sup>9</sup>Fifteen states have imposed limits on state legislators at some point during our sample period. However, we can only include eleven of them in our analysis. We exclude Louisiana because its "top two" electoral system allows for two members of the same party to run against each other, Nevada and Oregon because they have too few cases, Nebraska because it has a unicameral (and non-partisan) legislature, and Oklahoma because legislators become term-limited based on the total number of years they have served regardless of the chamber. As a result, our study focuses on Arkansas, Arizona, California, Colorado, Florida, Maine, Michigan, Missouri, Montana, Ohio, and South Dakota. See Table A2 in the Appendix for a summary of the characteristics of the term limits legislation in these fifteen states.

<sup>10</sup>Jacobson (1989, 2009), Squire (1992), Cox and Katz (2002), Carson, Engstrom and Roberts (2007), and many others find that candidates who previously held elective office have significantly larger vote shares and significantly higher probabilities of winning than other candidates. While scholars acknowledge that previous elective office experience is only one component of quality, it is an important component – at least from an electoral point of view. Bond, Covington and Fleisher (1985), Krasno and Green (1988), and Canon (1990) have constructed more comprehensive measures of quality. Carson and Roberts (2011) conclude that, "Despite numerous attempts to develop more detailed codings of challenger quality... the simple dichotomy has typically proven just as reliable a predictor of a competitive House election... we believe that trying to come up with yet another alternative measure of candidate quality represents an area where further research is clearly unwarranted." (p. 151)

<sup>11</sup>Lagged party control is defined as 1 if the Democratic party won the last election, and - 1 if it was the Republican party that won.

lenging, because in most states there is no simple correspondence between state house and state senate district boundaries; nor are state house districts nested inside state senate districts. Since a candidate is required to be a resident of a senate district in order to run for the senate seat, we compiled representative addresses from candidate filing information available from Secretary of State offices.<sup>12</sup> In cases where both residential addresses and mailing addresses were available, we used the residential address to maximize accuracy. The addresses were geocoded and matched with senate district shape files in GIS to identify the senate district for which a term-limited representative was eligible to run for based on residency.

## 4.2 RESULTS

Table 4.1 presents the estimated incumbency and quality challenger effects using each method. The first three columns use the district fixed effects model (Model 1), and the last three columns use the Gelman and King (1990) model with lagged vote and lagged party control (Model 2). Remember that for each one of these models, we estimated the OLS model as well as two different IV analysis: one with only  $T_{it}^D$  and  $T_{it}^R$  as instruments (IV i), the other with  $T_{it}^D$  and  $T_{it}^R$  as well as  $T2_{it}^D$  and  $T2_{it}^R$  (IV ii).

The first thing to notice is that the estimated effect of quality challengers increases but by a small amount once we get rid of the omitted variable bias by way of using instrumental variable analyses. In Model 1, it goes from 3.5 percentage points of the vote share in the OLS model to 4.5 or 3.6 percentage points depending on the IV model used. In Model 2, it goes from 4.9 percentage points to 6.9 or 7.5 percentage points. Perhaps more importantly, improving upon the quality challenger control does not seem to affect the estimated incumbency advantage. To determine how much strategic challenger entry affects incumbency advantage estimates, we can compare the ordinary least squares (OLS) and instrumental variables (IV) estimates. The OLS regressions produce estimates of the incumbency advantage ranging from 5.2 percentage points in Model 1 to 7.3 percentage points in Model 2. Using term limits to instrument for challenger quality

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<sup>12</sup>California and South Dakota do not have residency requirements, but given the strong norms against “carpet-bagging” throughout the U.S. it is rare for candidates to run outside the area where they live. In any case, this simply means there is measurement error in our instrumental variables. Montana has a unique residency requirement, according to which a candidate for a state legislative office must be “a resident of the county if it contains one or more districts or of the district if it contains all or parts of more than one county.” We incorporate this feature in defining our instruments.

results in slightly different estimates, as shown in the IV rows of Table 4.1. The IV (i) estimate of the incumbency advantage is 5.8 percentage points in Model 1 and 8.4 percentage points in Model 2. In both model specifications, the IV (i) estimates of incumbency advantage are a bit higher than the conventional OLS estimates. However, Hausman tests indicate that the difference between the OLS and IV (i) estimates is not statistically significant – for neither model can we reject the null hypothesis that the OLS and IV (i) coefficient estimates are equal. This includes the coefficients of both quality challenger effects and incumbency advantage. We arrive at very similar results and conclusions comparing the OLS estimates to those of the IV (ii) models.<sup>13</sup>

Table 4.1: Incumbency and Quality Challenger Effects in U.S. State Senates, 2002-2010

	Dependent Variable = Vote Share					
	District Fixed Effects			Gelman and King (1990)		
	Model 1			Model 2		
	OLS	IV i	IV ii	OLS	IV i	IV ii
Incumbency Status	<b>0.052</b> (0.004)	<b>0.058</b> (0.010)	<b>0.052</b> (0.009)	<b>0.073</b> (0.006)	<b>0.084</b> (0.010)	<b>0.087</b> (0.009)
Quality Challenger	<b>-0.035</b> (0.005)	<b>-0.045</b> (0.016)	<b>-0.036</b> (0.014)	<b>-0.049</b> (0.005)	<b>-0.069</b> (0.015)	<b>-0.075</b> (0.013)
Lagged Vote Share				<b>0.729</b> (0.035)	<b>0.692</b> (0.044)	<b>0.681</b> (0.042)
Lagged Party Control				<b>-0.029</b> (0.006)	<b>-0.034</b> (0.007)	<b>-0.036</b> (0.007)
District Fixed Effects	Yes	Yes	Yes	No	No	No
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	929	929	929	504	504	504
Hausman Test		0.464 [0.998]	0.004 [1.000]		2.028 [0.958]	4.999 [0.660]

Notes: Standard errors are in parentheses. P-values are in square brackets. Coefficients statistically significant at the 95 percent level of confidence are shown in bold. The OLS models follow equation 4.1. The IV models follow the equations described in 4.2. IV i include only  $T_{it}^D$  and  $T_{it}^R$  as instruments. IV ii also include  $T_{it}^D$  and  $T_{it}^R$ .

These findings imply that strategic entry by experienced politicians does neither affect the estimates of the effect of quality challengers nor the estimates of incumbency advantage. If experienced politicians were systematically challenging only “weak” incumbents, then introducing an exogenous

<sup>13</sup>We performed the same analysis using as a dependent variable an indicator of whether the winner was the Democratic candidate. We arrived at the same substantive conclusions. The IV estimates were very similar to the OLS estimates and the Hausman test indicated that the differences were not significant.



assignment of quality challengers through using IV would result in a different estimate of incumbency advantage. However, since our IV estimates are not significantly different from the OLS estimates, we can conclude that strategic entry by high-quality challengers was not noticeably affecting the OLS estimates of incumbency advantage in the first place. This conclusion holds true if our instruments are indeed strong and excludable. We turn to examine this next.

#### 4.2.1 STRENGTH AND EXOGENEITY OF THE INSTRUMENTS

Table 4.2 shows the results of the first-stage estimates for our IV analyses, which use the number of term-limited state representatives in a district to predict challenger quality in state senate elections.<sup>14</sup> Recall that the dependent variable  $Q_{it}$  is defined to capture the experience of the challenger, signed so that it is positive when there is a Republican high-quality candidate challenging the Democratic incumbent, negative when there is a Democratic high-quality candidate challenging the Republican incumbent, or capturing the difference between the qualities of the candidates when the seat is open (Republican - Democratic). As a result, we should expect a negative sign on the coefficient for the number of term-limited Democrats because a greater number of term-limited Democratic representatives should result in a greater probability of a high-quality Democratic challenger (which is equivalent to a negative number of the dependent variable). Likewise, we should expect a positive sign on the coefficient for the number of term-limited Republicans because a greater number of term-limited Republican representatives should result in a greater probability of a high-quality Republican challenger. As before, Model 1 measures the normal vote using district fixed effects, while Model 2 measures the normal vote using the district's lagged vote share with an indicator of the lagged party control.

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<sup>14</sup>Even simple summary statistics indicate a high degree of strategic behavior by experienced challengers. Consider all state senate races with an incumbent running. In districts with no term-limited state representatives (i.e., cases where the instrument is 0) a high-quality challenger was present in 7% of the races. In districts with at least one term-limited state representative (i.e., cases where the instrument is positive), a high-quality challenger was present in 47% of the races. Of these high-quality challengers, 41% were term-limited.

Table 4.2: First-Stage Estimates

	Dependent Variable = Quality Challenger			
	District Fixed Effects		Gelman and King	
	Model 1		Model 2	
	IV i	IV ii	IV i	IV ii
No. Term-Limited Democrats	<b>-0.191</b> (0.040)	<b>-0.189</b> (0.040)	<b>-0.261</b> (0.053)	<b>-0.254</b> (0.052)
No. Term-Limited Republicans	<b>0.142</b> (0.035)	<b>0.136</b> (0.035)	<b>0.275</b> (0.044)	<b>0.271</b> (0.043)
No. Term-Limited Democrats (2 years prior)		<b>-0.088</b> (0.044)		<b>-0.236</b> (0.054)
No. Term-Limited Republicans (2 years prior)		<b>0.134</b> (0.046)		<b>0.203</b> (0.046)
Incumbency Status	<b>0.561</b> (0.025)	<b>0.537</b> (0.026)	<b>0.436</b> (0.038)	<b>0.373</b> (0.039)
Lagged Vote Share			<b>-1.392</b> (0.239)	<b>-1.167</b> (0.237)
Lagged Party Control			-0.234 (0.042)	<b>-0.201</b> (0.041)
District Fixed Effects	Yes	Yes	No	No
Year Fixed Effects	Yes	Yes	Yes	Yes
First-Stage F-Tests	18.6	12.4	31.1	25.3

Notes: Standard errors are in parentheses. P-values are in square brackets. Coefficients statistically significant at the 95 percent level of confidence are shown in bold. The F-Tests are performed on the null hypothesis that the coefficients on all instruments equal 0. The p-values of the F-Tests are all very close to zero.

The first-stage regressions confirm the strength of our instruments; term limits have a substantive impact on the probability of having a quality candidate in the race. The coefficients on the number of term-limited Democratic representatives and the number of term-limited Republican representatives (at the time of the election or two years prior) range in magnitude from 8.8 percentage points to 27.5, depending on the model, and are all statistically significant. F-tests are performed for the joint hypothesis that all of the coefficients on our instruments equal 0. Since the  $p$ -values of the F-test is close to 0, we reject the null hypothesis that the coefficients are equal to 0.

The F-statistics, which provide a measure of information contained in the instruments, are much larger than the standard benchmark of 10, indicating that our instruments are strong.<sup>15</sup>

As mentioned before, our analysis is only valid if our instruments, in addition to being strong, are also exogenous. In other words, the number of term-limited representatives in a district should not be correlated with the electoral vulnerability of the incumbent of the senate seat in that district. We see no reason why this would be the case. Also, for example, the correlation between the number of term-limited Democrats and the seniority of the Republican incumbent is -0.05, and the correlation between the number of term-limited Republicans and the seniority of the Democratic incumbent is 0.02. Since seniority is related to vulnerability (more vulnerable incumbents are less likely to survive), the low correlations between our instruments and incumbent seniority suggest that our instruments are also not correlated with incumbent vulnerability.

#### 4.2.2 EXTERNAL VALIDITY

Finally, we think that our findings are informative beyond the senate races that we look at. Table 4.3 presents some summary statistics that help us make that case. The first two rows show that, in states with term limits, term-limited representative run in similar races as non-term limited representatives. The partisanship, electoral safety, and incumbent seniority (in years) of these races are similar. Obviously, the representatives are different in terms of seniority, since one group was already term-limited while the other had not been yet.

The third row shows the same statistics for the senate races challenged by state representatives in states without term limits. As one can see by comparing the first two rows with the third, states with term limits are only slightly different from the rest. To begin with, as one would expect given the usage of term limits, the average incumbent has been in office for a shorter period of time. However, the average experience of the term-limited challengers in our sample is similar to that of the state representatives that run for higher office in the states without term limits. Also, in states without term limits state representatives tend to run in districts that are “safer” for one party.

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<sup>15</sup>If we construct our instruments differently, capturing the number of term-limited representatives in one variable, with different signs depending on their party affiliation, then we reduce the number of instruments by half and we get much higher F-tests. In this case, the F-tests would range from 27.7 to 62.2.

Table 4.3: Summary Statistics of Senate Races Challenged by State House Representatives

	District Partisanship <sup>a</sup>	District Marginality <sup>b</sup>	Challenger Seniority <sup>c</sup>	Incumbent Seniority <sup>d</sup>
<i>States with term limits</i>				
- Term-limited challengers	0.490	0.110	7.92	7.92
- Non-term-limited challengers	0.480	0.136	4.93	8.62
<i>States without term limits</i>				
- (Non-term-limited) challengers	0.482	0.168	7.41	12.82

<sup>a</sup> Democratic share of two-party voter registration (2008 data only).

<sup>b</sup> Absolute distance of two-party voter registration from 50-50 (2008 data only).

<sup>c</sup> Measured as previous years served.

<sup>d</sup> From cases where the challenger faced an incumbent.

In addition, we also examined whether the states with term-limits are unusual in other ways. One key dimension is legislative professionalism, since it is likely that the incumbency advantage, the effect of challenger quality, and the degree to which potential candidates are strategic is higher in professional legislatures. Using the well-known Squire index (from 2005, midway through in our sample), we find that the states with term limits in our sample are slightly more professional than other states – the average Squire index in states with term limits is 0.22 and the average in other states is 0.17 – although the difference is not statistically significant even at the 0.10 level.<sup>16</sup>

#### 4.2.3 IMPLICATIONS: THE SCARE-OFF EFFECT

As described in the introduction, one of the main causes of the incumbency advantage is the so-called “scare-off” effect. Incumbents make an effort to deter serious opposition and ambitious career politicians, aware of the advantage incumbents have, make strategic decisions about when to enter a race. As a result, incumbents end up facing weak challengers and, thus, they win their re-election bids with large margins. As Jacobson (2009) explains: “The electoral value of incumbency lies not only in what it provides to the incumbent but also in how it affects the thinking of potential opponents and their potential supporters. Many incumbents win easily by wide margins because they face inexperienced, sometimes reluctant, challengers who lack the financial and organizational backing to mount a serious campaign for congress.” (p. 45)

<sup>16</sup>See Squire (2012) for details about the Squire index. The range of the index used is [0.03, 0.63].

Now that we have an unbiased estimate of the effect of challenger quality, we can now use it to estimate how much of the incumbency advantage is due to incumbents scaring off high-quality challengers. To do so, we follow Cox and Katz (1996) and define the scare-off effect as:<sup>17</sup>

$$S = \beta_2 \cdot [\Pr(Q_{it} = 1|I_{it} = 0) - \Pr(Q_{it} = 1|I_{it} = 1)] \quad (4.3)$$

where  $\beta_2$  represents the effect that facing a high quality challenger would have in the vote share of a candidate and the difference in probabilities represents the effect that the presence of the incumbent has on the probability of having a high quality challenger in the race. For our calculations, then, we can use the coefficient on *Quality Challenger* from the second-stage regressions (which is an unbiased estimate of  $\beta_2$ ) and the coefficient on *Incumbency Status* from our first-stage regressions (which is as good an estimate as we can get of the difference in probabilities).

Table 4.4: Estimates of the Scare-off Effect in U.S. State Senate Races, 2002-2010

	District Fixed Effects Model		Gelman and King Model	
	IV i	IV ii	IV i	IV ii
Incumbency Advantage (from Table 4.1)	0.058	0.052	0.084	0.087
Quality Challenger Effect on Vote Share (from Table 4.1)	-0.045	-0.036	-0.069	-0.075
Incumbency Status Effect on Probability of Quality Challenger (from Table 4.2)	0.561	0.537	0.436	0.373
Scare-off Effect	0.025	0.019	0.030	0.028
Portion of Incumbency Advantage due to Scare-off Effect	43%	37%	36%	32%

Using the estimates from Tables 4.1 and 4.2 we can construct Table 4.4, where we show that, based on our calculations, the scare-off effect ranges from 2 to 3 percentage points of the vote and represents between 30 and 40 percent of the estimated incumbency advantage. This is consistent

<sup>17</sup>What we call the scare-off effect is what Cox and Katz (1996) refer to as the “total indirect effect”.

with Cox and Katz (1996) findings, who estimated that the scare-off effect comprised 29 percent of the incumbency advantage in 1990, the latest year in their sample.<sup>18</sup>

### 4.3 CONCLUSION

In conclusion, our results indicate that state representatives strategically decide when to run for higher office, but that their strategic entry to the race does not bias the the estimated effect that having a quality challenger has on the vote share, nor does it bias the estimated incumbency advantage. This is probably because strategic entry is highly correlated with variables that we can measure relatively accurately and control for (e.g., the district partisanship or “the normal vote”, and partisan tides due to midterm slumps, coattails, and other phenomena). In other words, based on our results, the strategic entry by state representatives is not highly correlated with the unmeasured “electoral vulnerability” of particular state senate incumbents. Otherwise, the OLS and IV estimates would be quite different.

What does the estimated coefficient on incumbency status represent? We have isolated incumbency from one component of challenger quality: previous legislative experience. Since previous research on U.S. House elections suggests that the prior officeholder experience – especially state legislative experience – captures one of the most important aspects of challenger quality our findings represent significant progress. Other challenger attributes may matter however – prior service in offices other than state representative, business experience, and leadership in community groups. Thus, we cannot yet conclude that the coefficient represents only average incumbent quality relative to a “randomly drawn” challenger, plus officeholder benefits.

What about portability to other contexts? As noted above, the states with term limits are similar to the states without term limits in terms of partisanship and legislative professionalism, although on average the senate districts in these states are more competitive than those in other states. It is also possible that strategic calculations are different in states with term limits. For example, some state representatives might prefer to wait until after the next redistricting to challenge a state senator, but cannot do so because they will be term-limited beforehand. On the other hand, compared to states without term limits, it is likely that state representatives in states with term

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<sup>18</sup>Cox and Katz (1996) use the Gelman and King model for the estimations, thus, their results are comparable to our Model 2 results.

limits are more tempted to wait for open state senate seats, because state senators also face term limits. On balance, it is not clear whether these differences make it more or less difficult to plan in states with term limits, but this would appear to be a fruitful area both for theory and future empirical work.

In any case, our findings can be taken as good news for many previous studies in the literature. Our results suggest that the bias due to strategic challenger entry may be less of a problem in practice than it is in theory, so the estimates in previous studies that “punt” on this issue might not be seriously biased.

# 5

## CONCLUSION

After decades of research, we have yet to know whether incumbency advantage is a positive or a negative trait of developed democracies. This dissertation aims to contribute to our understanding of the sources of this phenomenon and, hence, their normative implications. While each of the three papers of this dissertation provides some new insight about the topic, they also raise some further questions, laying out my future research agenda.

In the study of mixed-system elections in Germany, Hungary, New Zealand, and Japan, I find that voters are more likely to vote for a party other than their own in single-member district elections than in multi-member PR elections with closed party lists. Voters are more likely to cast a strategic vote and, if the two electoral tiers are not linked in a system of compensatory seats, voters are also more likely to cast a personal vote. In other words, I find that by setting the rules of the game and establishing different sets of incentives, electoral institutions have an effect on the degree to which politics is party-oriented or personalistic. Further research is needed, however, to determine the specific mechanisms by which electoral institutions affect the level of incumbency advantage in the elections.

In the analysis of the elections to the Spanish Senate, I find a small but significant incumbency advantage, estimated to increase the probability of all incumbents being reelected by almost 25 percentage points but that of vulnerable incumbents by more than 50 percentage points. I also find that the main source of such advantage comes from the behavior of the parties. In particular, I find that parties helped their more vulnerable senators get reelected by ensuring that they be placed first on the ballot. Since during the elections studied the law stipulated that candidates be ordered on the ballot alphabetically, in order to ensure that incumbents be placed first, parties



had to nominate other candidates with last names further down the alphabet. In other words, in this study I find that even when the stakes are low, parties use whatever means available to them to help their preferred incumbents get reelected. The mechanisms by which the parties help their incumbents win is likely to change depending on the elections. In future research, I will explore whether and how the actions of the parties are a source of incumbency advantage in other countries.

In the paper on the elections to U.S. state senates with term limits, my co-authors and I find strong evidence of strategic behavior by experienced challengers and estimate that between 30 and 40 percent of the incumbents' advantage is driven by them "scaring off" serious opposition. What still remains unclear is what accounts for the remaining 70 or 60 percent, which is likely to be the core reason why experienced challengers behave strategically and avoid facing strong incumbents at the polls.

The literature on the potential sources of incumbency advantage has mostly focused on the activities that the incumbents personally engage in. In this dissertation, I establish that both electoral institutions and the parties behind the incumbents have a larger role than scholars have given them credit for. In addition, my co-authors and I find that most of the advantage that incumbents enjoy over their challengers cannot be explained by their facing inexperienced challengers. More research is needed.



## APPENDICES

### A.1 APPENDIX FROM CHAPTER 2: VOTING FOR PARTIES OR FOR CANDIDATES

Table A1: Summary Statistics by Lower House Elections in the CSES Dataset

	Party Defection in Lower House Elections	Electoral Formula & Voting Procedure <sup>a</sup>	Feels Close to a Political Party	Recalls Candidates			Had Contact with a Politician Last Year	Average # of Correct Political Knowledge Answers
				None	One	>One		
AUS 1996	0.29 0.45	3	0.83 0.37				0.16 0.37	1.59 0.96
BELF 1999	0.27 0.44	4	0.95 0.22					1.34 1.01
CAN 1997	0.51 0.50	1	0.50 0.50	0.32 0.47	0.22 0.41	0.46 0.50	0.22 0.41	1.78 0.97
CHE 1999	0.13 0.34	4	0.36 0.48	0.54 0.50	0.14 0.35	0.32 0.47	0.19 0.39	1.50 1.02
CZE 1996	0.25 0.43	4	0.49 0.50	0.42 0.49	0.21 0.40	0.37 0.48	0.08 0.26	2.03 0.99
DEU 1998 <sup>1</sup>	0.17 0.38	1	0.34 0.47	0.58 0.49	0.24 0.43	0.18 0.38	0.11 0.32	1.22 0.89
DEU 1998 <sup>2</sup>	0.17 0.38	5	0.34 0.47	0.58 0.49	0.24 0.43	0.18 0.38	0.11 0.32	1.22 0.89
DNK 1998	0.25 0.43	4	0.50 0.50	0.23 0.42	0.20 0.40	0.58 0.49	0.20 0.40	

<sup>a</sup> Electoral Formula & Voting Procedure Categories: 1 = SMD-Candidate; 2 = MMD-Candidate; 3 = Majority-Candidate; 4 = PR-Open Party List; 5 = PR-Closed Party List.

<sup>1</sup> Denotes first segment and <sup>2</sup> denotes second segment in mixed electoral systems.  
Standard deviations shown under the means.

Table A1: Summary Statistics by Lower House Elections in the CSES Dataset (Continuation)

	Party Defection in Lower House Elections	Electoral Formula & Voting Procedure <sup>a</sup>	Feels Close to a Political Party	Recalls Candidates			Had Contact with a Politician Last Year	Average # of Correct Political Knowledge Answers
				None	One	>One		
ESP 1996	0.21 0.44	5	0.43 0.49	0.74 0.44	0.16 0.36	0.11 0.31	0.03 0.18	1.53 1.02
ESP 2000	0.05 0.22	5	0.42 0.49	0.75 0.43	0.14 0.34	0.11 0.31	0.03 0.18	1.53 0.83
GBR 1997	0.15 0.36	1	0.46 0.50	0.40 0.49	0.31 0.46	0.29 0.45	0.13 0.33	1.91 1
HKG 1998	0.20 0.40	5	0.08 0.27	0.34 0.48	0.21 0.41	0.44 0.50	0.04 0.20	1.86 0.92
HKG 2000	0.68 0.47	5	0.07 0.26	0.38 0.49	0.20 0.40	0.41 0.49	0.06 0.24	1.77 0.88
HUN 1998 <sup>1</sup>	0.17 0.38	3	0.35 0.48	0.37 0.48	0.23 0.42	0.40 0.49	0.07 0.25	1.22 0.98
HUN 1998 <sup>2</sup>	0.07 0.26	5	0.35 0.48	0.37 0.48	0.23 0.42	0.40 0.49	0.07 0.25	1.22 0.98
ISL 1999	0.23 0.42	4	0.51 0.50	0.17 0.37	0.14 0.34	0.70 0.46	0.31 0.46	
ISR 1996	0.43 0.50	5	0.64 0.48				0.16 0.37	1.17 0.99
JPN 1996 <sup>1</sup>	0.28 0.45	1	0.38 0.48	0.06 0.24	0.14 0.35	0.80 0.40	0.08 0.27	0.52 0.66
JPN 1996 <sup>2</sup>	0.20 0.40	5	0.38 0.48	0.06 0.24	0.14 0.35	0.80 0.40	0.08 0.27	0.52 0.66
KOR 2000 <sup>1</sup>	0.20 0.40	1	0.27 0.45	0.08 0.28	0.51 0.50	0.41 0.49	0.16 0.37	
MEX 1997 <sup>1</sup>	0.16 0.37	1	0.44 0.50	0.82 0.38	0.11 0.32	0.07 0.25	0.10 0.30	1.81 0.97
MEX 2000 <sup>1</sup>	0.21 0.41	1	0.52 0.50	0.87 0.34	0.11 0.31	0.03 0.16	0.09 0.29	1.52 1.07
NLD 1998	0.18 0.39	4	0.28 0.45				0.05 0.23	1.52 0.95
NOR 1997	0.15 0.36	5	0.52 0.50	0.31 0.46	0.18 0.39	0.50 0.50	0.15 0.35	1.45 0.91
NZL 1996 <sup>1</sup>	0.30 0.46	1	0.56 0.50	0.17 0.38	0.20 0.40	0.62 0.48	0.26 0.44	1.72 0.97
NZL 1996 <sup>2</sup>	0.21 0.41	5	0.56 0.50	0.17 0.38	0.20 0.40	0.62 0.48	0.26 0.44	1.72 0.97

<sup>a</sup> Electoral Formula & Voting Procedure Categories: 1 = SMD-Candidate; 2 = MMD-Candidate; 3 = Majority-Candidate; 4 = PR-Open Party List; 5 = PR-Closed Party List.

<sup>1</sup> Denotes first segment and <sup>2</sup> denotes second segment in mixed electoral systems.  
Standard deviations shown under the means.

Table A1: Summary Statistics by Lower House Elections in the CSES Dataset (Continuation)

	Party Defection in Lower House Elections	Electoral Formula & Voting Procedure <sup>a</sup>	Feels Close to a Political Party	Recalls Candidates			Had Contact with a Politician Last Year	Average # of Correct Political Knowledge Answers
				None	One	>One		
PER 2001	0.40 0.49	5	0.27 0.44	0.27 0.45	0.34 0.48	0.38 0.49	0.09 0.28	
POL 1997 <sup>1</sup>	0.43 0.49	4	0.53 0.50	0.62 0.49	0.22 0.41	0.16 0.37	0.06 0.24	1.76 1.03
PRT 2002	0.17 0.38	5	0.47 0.50	0.81 0.39	0.10 0.30	0.09 0.29	0.06 0.24	1.41 0.87
ROU 1996	0.34 0.47	5	0.47 0.50	0.71 0.46	0.19 0.39	0.10 0.31	0.07 0.26	1.46 1.06
RUS 1999 <sup>1</sup>	0.14 0.34	1	0.62 0.48	0.31 0.46	0.17 0.37	0.52 0.50	0.03 0.16	
SVN 1996 <sup>1</sup>	0.76 0.43	4	0.22 0.41					
SWE 1998	0.21 0.40	4	0.53 0.50	0.67 0.47	0.23 0.42	0.10 0.31	0.11 0.31	1.71 1.03
TWN 1996 <sup>1</sup>	0.14 0.34	2	0.34 0.47	0.63 0.48	0.13 0.33	0.24 0.43	0.08 0.27	1.74 1.21
UKR 1998 <sup>1</sup>	0.27 0.45	3	0.69 0.46	0.61 0.49	0.18 0.39	0.21 0.41	0.08 0.26	1.87 0.87
USA 1996	0.18 0.39	1	0.57 0.50	0.48 0.50	0.25 0.43	0.27 0.45	0.14 0.35	1.55 0.81

<sup>a</sup> Electoral Formula & Voting Procedure Categories: 1 = SMD-Candidate; 2 = MMD-Candidate; 3 = Majority-Candidate; 4 = PR-Open Party List; 5 = PR-Closed Party List.

<sup>1</sup> Denotes first segment and <sup>2</sup> denotes second segment in mixed electoral systems.  
Standard deviations shown under the means.

## A.2 APPENDIX FROM CHAPTER 4: CHALLENGER QUALITY AND THE INCUMBENCY ADVANTAGE

Table A2: Summary of Term Limit Laws in U.S. State Lower Houses

State	Number of Years	Impact Period
Arizona	8	2000–present
Arkansas	6	1998–present
California	6	1996–present
Colorado	8	1998–present
Florida	8	2000–present
Louisiana	12	2007–present
Maine	8	1996–present
Michigan	6	1998–present
Missouri	8	2002–present
Montana	8 <sup>a</sup>	2000–present
Nevada	12	2010–present
Ohio	8	2000–present
Oklahoma	12 <sup>b</sup>	2004–present
Oregon	6	1998–2002
South Dakota	8	2000–present

<sup>a</sup> An individual may not serve more than 8 years over a 17 year period.

<sup>b</sup> 12 years total in the legislature (across both lower and upper houses).

Idaho passed a term-limit law in 1994 but repealed the law before it went into effect.

# R

## REFERENCES

- Aardal, Bernt and Henrik Oscarsson. 2000. "The Myth of Increasing Personalization of Politics." *Paper Presented at the Annual Meeting of the American Political Science Association*.
- Aarts, Kees, André Blais and Hermann Schmitt. 2013. *Political Leaders and Democratic Elections*. Oxford University Press.
- Abramowitz, Alan. 1975. "Name Familiarity, Reputation, and the Incumbency Effect in a Congressional Election." *The Western Political Quarterly* 28(4):668–684.
- Abramowitz, Alan. 1991. "Incumbency, Campaign Spending, and the Decline of Competition in U.S. House Elections." *The Journal of Politics* 53(1):34–56.
- Abramowitz, Alan I. 1988. "Explaining Senate Election Outcomes." *The American Political Science Review* 82(2):385–403.
- Abramson, Paul R., John H. Aldrich, André Blais, Matthew Diamond, Abraham Diskin, Indridi H. Indridason, Daniel J. Lee and Renan Levine. 2010. "Comparing Strategic Voting Under FPTP and PR." *Comparative Political Studies* 43(1):61–90.
- Aldrich, John H., André Blais and Indridi H. Indridason. 2005. Coalition Considerations and the Vote. In *The Elections in Israel 2003*, ed. Alan Arian and Michal Shamir. New Brunswick, NJ: Transaction Press.
- Aldrich, John Herbert. 1995. *Why Parties?* The Origin and Transformation of Political Parties in America. University Of Chicago Press.
- Alford, John R. and David W. Brady. 1989. Personal and Partisan Advantage in U.S. Congressional Elections. In *Congress Reconsidered*, ed. Lawrence C. Dodd and Bruce I. Oppenheimer. 4th ed. Praeger Publishers.
- Alvarez, R Michael, Frederick J Boehmke and Jonathan Nagler. 2006. "Strategic Voting in British Elections." *Electoral Studies* 25(1):1–19.
- Alvarez, R. Michael and Jason Saving. 1997. "Deficits, Democrats, and Distributive Benefits: Congressional Elections and the Pork Barrel in the 1980s." *Political Research Quarterly* 50(4):809–831.
- Alvarez, R. Michael and Jonathan Nagler. 2000. "A New Approach for Modelling Strategic Voting in Multiparty Elections." *British Journal of Political Science* 30(1):57–75.

- Ansolabehere, Stephen and James M. Snyder, Jr. 2004. "Using Term Limits to Estimate Incumbency Advantages When Officeholders Retire Strategically." *Legislative Studies Quarterly* 29(4):487–515.
- Ansolabehere, Stephen, James M. Snyder, Jr. and Charles Stewart, III. 2000. "Old Voters, New Voters, and the Personal Vote: Using Redistricting to Measure the Incumbency Advantage." *American Journal of Political Science* 44(1):17–34.
- Ansolabehere, Stephen and James Snyder. 2002. "The Incumbency Advantage in U.S. Elections: An Analysis of State and Federal Offices, 1942–2000." *Election Law Journal* 1(3):315–338.
- Ariga, Kenichi. 2010. Entrenched Incumbents, Irresponsible Parties? Comparative Analysis of Incumbency Advantage Across Different Electoral Systems. PhD thesis Michigan University.
- Ashworth, Scott and Ethan Bueno de Mesquita. 2008. "Electoral Selection, Strategic Challenger Entry, and the Incumbency Advantage." *The Journal of Politics* 70(4):1006–1025.
- Bagues, Manuel and Berta Esteve-Volart. 2012. "Are Women Pawns in the Political Game? Evidence from Elections to the Spanish Senate." *Journal of Public Economics* 96(3-4):387–399.
- Banks, Jeffrey S. and D. Roderick Kiewiet. 1989. "Explaining Patterns of Candidate Competition in Congressional Elections." *American Journal of Political Science* 33(4):997–1015.
- Bargsted, Matias A and Orit Kedar. 2007. "Voting for Coalitions: Strategic Voting under Proportional Representation." *Paper Presented at the Annual Meeting of the Midwest Political Science Association, Chicago* .
- Baron, Reuben and David Kenny. 1986. "The Moderator–Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations." *Journal of Personality and Social Psychology* 51(6):1173–1182.
- Bartle, John and Ivor Crewe. 2002. The Impact of Party Leaders in Britain. In *Leaders Personalities and the Outcomes of Democratic Elections*, ed. Anthony Stephen King. Oxford: Oxford University Press pp. 70–95.
- Bawn, Kathleen. 1999. "Voter Responses to Electoral Complexity: Ticket Splitting, Rational Voters and Representation in the Federal Republic of Germany." *British Journal of Political Science* 29:487–505.
- Bean, Clive and Anthony Mughan. 1989. "Leadership Effects in Parliamentary Elections in Australia and Britain." *The American Political Science Review* 83(4):1165–1179.
- Bertrand, Marianne, Esther Duflo and Sendhil Mullainathan. 2004. "How Much Should we Trust Differences-in-Differences Estimates?" *The Quarterly Journal of Economics* 119(1):249–275.
- Bianco, William T. 1984. "Strategic Decisions on Candidacy in U.S. Congressional Districts." *Legislative Studies Quarterly* 9(2):351–364.
- Blais, André, Elisabeth Gidengil, Agnieszka Dobrzynska, Neil Nevitte and Richard Nadeau. 2003. "Does the Local Candidate Matter? Candidate Effects in the Canadian Election of 2000." *Canadian Journal of Political Science* 36(03):657–664.
- Blais, André, Richard Nadeau, Elisabeth Gidengil and Neil Nevitte. 2001. "Measuring Strategic Voting in Multiparty Plurality Elections." *Electoral Studies* 20(3):343–352.

- Blais, André and Thomas Gschwend. 2010. Strategic Defection across Elections, Parties, and Voters. In *Citizens, Context, and Choice: How the Political Context Shapes Electoral Behavior*, ed. Christopher Anderson and Russell Dalton. Oxford: Oxford University Press.
- Bond, Jon R, Cary Covington and Richard Fleisher. 1985. "Explaining Challenger Quality in Congressional Elections." *The Journal of Politics* 47(2):510–529.
- Bowler, Shaun, Todd Donovan and Trudi Happ. 1992. "Ballot Propositions and Information Costs: Direct Democracy and the Fatigued Voter." *The Western Political Quarterly* 45(2):559–568.
- Brook, D. and Graham Upton. 1974. "Biases in Local Government Elections Due to Position on the Ballot Paper." *Applied Statistics* 23(3):414–419.
- Cain, Bruce E. 1978. "Strategic Voting in Britain." *American Journal of Political Science* 22(3):639–655.
- Cain, Bruce, John Ferejohn and Morris Fiorina. 1987. *The Personal Vote: Constituency Service and Electoral Independence*. Harvard University Press.
- Cameron, A Colin, Jonah B Gelbach and Douglas L Miller. 2008. "Bootstrap-Based Improvements for Inference with Clustered Errors." *Review of Economics and Statistics* 90(3):414–427.
- Campbell, James. 1983. "The Return of the Incumbents: The Nature of the Incumbency Advantage." *The Western Political Quarterly* 36(3):434–444.
- Canon, David. 1990. *Actors, Athletes, and Astronauts: Political Amateurs in the United States Congress*. University of Chicago Press.
- Carey, John M and Matthew Shugart. 1995. "Incentives to Cultivate a Personal Vote: A Rank Ordering of Electoral Formulas." *Electoral Studies* 14(4):417–439.
- Carson, Jamie and Jason Roberts. 2011. House and Senate Elections. In *Oxford Handbook of Congress*, ed. Francis Lee and Eric Schickler. Oxford University Press pp. 141–168.
- Carson, Jamie L., Erik J. Engstrom and Jason M. Roberts. 2007. "Candidate Quality, the Personal Vote, and the Incumbency Advantage in Congress." *American Political Science Review* 101(2):289–301.
- Carson, Jamie L and Jason M. Roberts. 2013. *Ambition, Competition, and Electoral Reform: The Politics of Congressional Elections Across Time*. University of Michigan Press.
- Conradt, David P and Eric Langenbacher. 2001. *The German Polity*. Rowman & Littlefield Publishers.
- Cover, Albert and David Mayhew. 1977. Congressional Dynamics and the Decline of Competitive Congressional Elections. In *Congress Reconsidered*, ed. Lawrence Dodd and Bruce Oppenheimer. New York: Praeger.
- Cox, Gary and Jonathan Katz. 1996. "Why Did the Incumbency Advantage in U.S. House Elections Grow?" *American Journal of Political Science* 40(2):478–497.
- Cox, Gary W. 1994. "Strategic Voting Equilibria under the Single Nontransferable Vote." *American Political Science Review* 88(3):608–621.



- Cox, Gary W. 1997. *Making Votes Count: Strategic Coordination in the World's Electoral Systems*. New York: Cambridge University Press.
- Cox, Gary W. and Jonathan N. Katz. 2002. *Elbridge Gerry's Salamander: The Electoral Consequences of the Reapportionment Revolution*. Cambridge University Press.
- Cox, Gary W and Matthew Soberg Shugart. 1996. "Strategic Voting Under Proportional Representation." *Journal of Law, Economics, and Organization* 12(2):299–324.
- Dalton, Russell J. 2000. The Decline of Party Identification. In *Parties without Partisans: Political Change in Advanced Industrial Democracies*, ed. Russell J Dalton and Martin P Wattenberg. Oxford University Press.
- Darcy, Robert. 1986. "Position Effects with Party Column Ballots." *The Western Political Quarterly* 39(4):648–662.
- Darcy, Robert. 1998. "Position Effects in Multimember Districts: The New Hampshire House of Representatives, 1972-1994." *Polity* 30(4):691–703.
- Denemark, David. 2001. Choosing MMP in New Zealand: Explaining the 1993 Electoral Reform. In *Mixed-member Electoral Systems: The Best of Both Worlds*, ed. Matthew Shugart and Martin P Wattenberg. Oxford: Oxford University Press.
- Duch, Raymond and Harvey Palmer. 2002. "Strategic Voting in Post-Communist Democracy?" *British Journal of Political Science* 32(01):63–91.
- Dummett, Michael A E. 1984. *Voting Procedures*. New York: Clarendon Press.
- Duverger, Maurice. 1959. *Political Parties, Their Organization and Activity in the Modern State*. New York: Wiley.
- Epstein, David and Peter Zemsky. 1995. "Money Talks: Deterring Quality Challengers in Congressional Elections." *The American Political Science Review* 89(2):295–308.
- Erikson, Robert. 1971. "The Advantage of Incumbency in Congressional Elections." *Polity* 3(3):395–405.
- Erikson, Robert. 1972. "Malapportionment, Gerrymandering, and Party Fortunes in Congressional Elections." *The American Political Science Review* 66(4):1234–1245.
- Feldman, Paul and James Jondrow. 1984. "Congressional Elections and Local Federal Spending." *American Journal of Political Science* 28(1):147–164.
- Ferejohn, John. 1977. "On the Decline of Competition in Congressional Elections." *The American Political Science Review* 71(1):166–176.
- Field, Bonnie. 2006. "Transitions to Democracy and Internal Party Rules: Spain in Comparative Perspective." *Comparative Politics* 39(1):83–102.
- Fieldhouse, Edward A, Charles J Pattie and Ronald J Johnston. 1996. "Tactical Voting and Party Constituency Campaigning at the 1992 General Election in England." *British Journal of Political Science* 26(3):403–418.

- Fiorina, Morris. 1977. "The Case of the Vanishing Marginals: The Bureaucracy Did It." *The American Political Science Review* 71(1):177–181.
- Fiorina, Morris. 1980. "The Decline of Collective Responsibility in American Politics." *Daedalus* 109(3):25–45.
- Fiorina, Morris. 1981. "Some Problems in Studying the Effects of Resource Allocation in Congressional Elections." *American Journal of Political Science* 25(3):543–567.
- Franklin, Mark, Richard Niemi and Guy Whitten. 1994. "The Two Faces of Tactical Voting." *British Journal of Political Science* 24(4):549–557.
- Gaines, Brian. 1998. "The Impersonal Vote? Constituency Service and Incumbency Advantage in British Elections, 1950–92." *Legislative Studies Quarterly* 23(2):167–195.
- Gelman, Andrew and Gary King. 1990. "Estimating Incumbency Advantage without Bias." *American Journal of Political Science* 34(4):1142–1164.
- Gelman, Andrew and Zaiying Huang. 2008. "Estimating Incumbency Advantage and Its Variation, as an Example of a Before–After Study." *Journal of the American Statistical Association* 103(482):437–446.
- Gerber, Alan. 1998. "Estimating the Effect of Campaign Spending on Senate Election Outcomes Using Instrumental Variables." *The American Political Science Review* 92(2):401–411.
- Glantz, Stanton, Alan Abramowitz and Michael Burkart. 1976. "Election Outcomes: Whose Money Matters?" *The Journal of Politics* 38(4):1033–1038.
- Glynn, Adam. 2011. "The Product and Difference Fallacies for Indirect Effects." *American Journal of Political Science* 56(1):257–269.
- Gordon, Sanford C., Gregory A. Huber and Dimitri Landa. 2007. "Challenger Entry and Voter Learning." *American Political Science Review* 101(2):303.
- Green, Donald Philip and Jonathan S. Krasno. 1988. "Salvation for the Spendthrift Incumbent: Reestimating the Effects of Campaign Spending in House Elections." *American Journal of Political Science* 32(4):884–907.
- Gschwend, Thomas. 2004. *Strategic Voting in Mixed Electoral Systems*. Wiesbaden: Statistisches Bundesamt.
- Gschwend, Thomas. 2007. "Ticket-Splitting and Strategic Voting under Mixed Electoral Rules: Evidence from Germany." *European Journal of Political Research* 46(1):1–23.
- Gschwend, Thomas. 2009. District Magnitude and the Comparative Study of Strategic Voting. In *The Comparative Study of Electoral Systems*, ed. Hans-Dieter Klingemann. Oxford University Press.
- Gutowski, William E and John P Georges. 1993. "Optimal Sophisticated Voting Strategies in Single Ballot Elections Involving Three Candidates." *Public Choice* 77(2):225–247.
- Hainmueller, Jens and Holger Lutz Kern. 2008. "Incumbency as a Source of Spillover Effects in Mixed Electoral Systems: Evidence from a Regression-Discontinuity Design." *Electoral Studies* 27(2):213–227.

- Heintzman, D. Keith. 1991. Electoral Competition, Campaign Expenditure and Incumbency Advantage. In *Issues in Party and Election Finance in Canada*, ed. F. Leslie Seidle. Toronto: Dundrum Press.
- Hirano, Shigeo. 2007. "Decomposing the Sources of Electoral Support for LDP Representatives." *Working Paper*.
- Hirano, Shigeo and James Snyder. 2009. "Using Multimember District Elections to Estimate the Sources of the Incumbency Advantage." *American Journal of Political Science* 53(2):292–306.
- Hoffman, Dale T. 1982. "A Model for Strategic Voting." *SIAM Journal on Applied Mathematics* 42(4):751–761.
- J Ornstein, Norman and Michael J Malbin. 2009. *Vital Statistics on Congress 2008*. Brookings Institution.
- Jacobson, Gary. 1978. "The Effects of Campaign Spending in Congressional Elections." *The American Political Science Review* 72(2):469–491.
- Jacobson, Gary. 1980. *Money in Congressional Elections*. Yale University Press.
- Jacobson, Gary C. 2009. *The Politics of Congressional Elections*. 7th ed. Pearson Longman.
- Jacobson, Gary C. and Samuel Kernell. 1983. *Strategy and Choice in Congressional Elections*. Yale University Press.
- Jacobson, G.C. 1989. "Strategic Politicians and the Dynamics of US House Elections, 1946–86." *The American Political Science Review* 83(3):773–793.
- Johannes, John. 1984. *To Serve the People: Congress and Constituency Service*. University of Nebraska.
- Johannes, John and John McAdams. 1981. "The Congressional Incumbency Effect: Is It Casework, Policy Compatibility, or Something Else? An Examination of the 1978 Election." *American Journal of Political Science* 25(3):512–542.
- Karp, Jeffrey A, Jack Vowles, Susan A Banducci and Todd Donovan. 2002. "Strategic Voting, Party Activity, and Candidate Effects: Testing Explanations for Split Voting in New Zealand's New Mixed System." *Electoral Studies* 21(1):1–22.
- Katz, Jonathan and Gary King. 1999. "A Statistical Model for Multiparty Electoral Data." *The American Political Science Review* 93(1):15–32.
- Katz, Richard S. 1986. Intraparty Preference Voting. In *Electoral Laws and Their Political Consequences*, ed. Bernard Grofman and Arend Lijphart. New York: Agathon Press.
- Kedar, Orit. 2005. "How Diffusion of Power in Parliaments Affects Voter Choice." *Political Analysis* 13:410–429.
- Kelley, Jonathan and Ian McAllister. 1984. "Ballot Paper Cues and the Vote in Australia and Britain: Alphabetic Voting, Sex, and Title." *The Public Opinion Quarterly* 48(2):452–466.
- Kendall, Chad and Marie Rekkas. 2012. "Incumbency Advantages in the Canadian Parliament." *Canadian Journal of Economics* 45(4):1560–1585.

- Kiewiet, D. Roderick and Langche Zeng. 1993. "An Analysis of Congressional Career Decisions, 1947-1986." *The American Political Science Review* 87(4):928-941.
- Krashinsky, Michael and William Milne. 1983. "Some Evidence on the Effect of Incumbency in Ontario Provincial Elections." *Canadian Journal of Political Science* 16(3):489-500.
- Krashinsky, Michael and William Milne. 1985. "Additional Evidence on the Effect of Incumbency in Canadian Elections." *Canadian Journal of Political Science* 18(1):155-165.
- Krasno, Jonathan S and Donald Philip Green. 1988. "Preempting Quality Challengers in House Elections." *The Journal of Politics* 50(4):920-936.
- Lee, David S. 2008. "Randomized Experiments from Non-Random Selection in US House Elections." *Journal of Econometrics* 142:675-697.
- Levitt, Steven and Catherine Wolfram. 1997. "Decomposing the Sources of Incumbency Advantage in the U.S. House." *Legislative Studies Quarterly* 22(1):45-60.
- Levitt, Steven and James Snyder. 1997. "The Impact of Federal Spending on House Election Outcomes." *The Journal of Political Economy* 105(1):30-53.
- Leys, Colin. 1959. "Models, Theories, and the Theory of Political Parties." *Political Studies* 7(2):127-146.
- Lijphart, Arend and Rafael López Pintor. 1988. "Alphabetic Bias in Partisan Elections: Patterns of Voting for the Spanish Senate, 1982 and 1986." *Electoral Studies* 7(3):225-231.
- Ludwin, William G. 1978. "Strategic voting and the borda method." *Public Choice* 33(1):85-90.
- Macdonald, Stuart Elaine, George Rabinowitz and Ola Listhaug. 1995. "Political Sophistication and Models of Issue Voting." *British Journal of Political Science* 25(4):453-483.
- Marsh, M. 2007. "Candidates or Parties?: Objects of Electoral Choice in Ireland." *Party Politics* 13(4):500-527.
- Marsh, Michael. 1985. "The Voters Decide?: Preferential Voting in European List Systems\*." *European Journal of Political Research* 13(4):365-378.
- Marsh, Michael, Richard Sinnott, John Garry and Fiachra Kennedy. 2008. *The Irish Voter. The Nature of Electoral Competition in the Republic of Ireland* Manchester University Press.
- Mayhew, David. 1974. "Congressional Elections: The Case of the Vanishing Marginals." *Polity* 6(3):295-317.
- Migueis, Marco. 2010. The Effect of Political Alignment on Transfers to Portuguese Municipalities. PhD thesis MIT, Department of Economics.
- Montabes, Juan and Carmen Ortega. 1999. "Candidate Selection in Two Rigid List Systems: Spain and Portugal." *Presented at the European Consortium for Political Research, Mannheim*.
- Montabes, Juan and Carmen Ortega. 2002. "El Voto Limitado en las Elecciones al Senado Español: Estrategias de Nominación y Rendimientos Partidistas en las Elecciones de Marzo de 2000." *Revista Española de Ciencia Política* 7:103-130.

- Moser, Robert G and Ethan Scheiner. 2004. "Mixed electoral systems and electoral system effects: controlled comparison and cross-national analysis." *Electoral Studies* 23(4):575–599.
- Moser, Robert G and Ethan Scheiner. 2005. "Strategic Ticket Splitting and the Personal Vote in MixedMember Electoral Systems." *Legislative Studies Quarterly* 30(2):259–276.
- Nelson, Candice J. 1978. "The Effect of Incumbency on Voting in Congressional Elections, 1964–1974." *Political Science Quarterly* 93(4):665–678.
- Niou, E M S. 2001. "Strategic Voting under Plurality and Runoff Rules." *Journal of Theoretical Politics* 13(2):209–227.
- Palfrey, Thomas R. 1984. "Spatial Equilibrium with Entry." *The Review of Economic Studies* 51(1):139–156.
- Parker, Glenn and Suzanne Parker. 1985. "Correlates and Effects of Attention to District by U.S. House Members." *Legislative Studies Quarterly* 10(2):223–242.
- Payne, James L. 1980. "The Personal Electoral Advantage of House Incumbents." *American Politics Quarterly* 8(4):375–398.
- Poguntke, Thomas and Paul Webb, eds. 2007. *The Presidentialization of Politics: A Comparative Study of Modern Democracies*. Oxford University Press.
- Reed, Steven. 1994. The Incumbency Advantage in Japan. In *The Victorious Incumbent: A Threat to Democracy?*, ed. Albert Somit, Rudolf Wildenmann, Bernhard Boll and Andrea Rommele. Brookfield, VT: Dartmouth Publishing Company.
- Reed, Steven R. 1999. "Strategic Voting in the 1996 Japanese General Election." 32(2):257–270.
- Robson, Christopher and Brendan Walsh. 1974. "The Importance of Positional Voting Bias in the Irish General Election of 1973." *Political Studies* 22(2):191–203.
- Romero, David. 1996. "The Case of the Missing Reciprocal Influence: Incumbent Reputation and the Vote." *The Journal of Politics* 58(4):1198–1207.
- Rosema, Martin. 2004. "Strategic and Semi-strategic Voting under Different Electoral Systems." *Paper Presented at the Annual Meeting of the Dutch Political Science Organisation (Politicologenetmaal), Antwerpen, Belgium, 27 – 28 May 2004*.
- Sartori, Giovanni. 1968. Political Development and Political Engineering. In *Public Policy*, ed. John D Montgomery and Albert O Hirschman. Cambridge: Cambridge University Press.
- Serra, George. 1994. "What's in It for Me?: The Impact of Congressional Casework on Incumbent Evaluation." *American Politics Research* 22(4):403–420.
- Serra, George and Albert Cover. 1992. "The Electoral Consequences of Perquisite Use: The Casework Case." *Legislative Studies Quarterly* 17(2):233–246.
- Serra, George and David Moon. 1994. "Casework, Issue Positions, and Voting in Congressional Elections: A District Analysis." *The Journal of Politics* 56(1):200–213.
- Squire, Peverill. 1992. "Legislative Professionalization and Membership Diversity in State Legislatures." *Legislative Studies Quarterly* 17(1):69–79.

- Squire, Peverill. 2012. *The Evolution of American Legislatures: Colonies, Territories, and States, 1619-2009*. Ann Arbor: University of Michigan Press.
- Stein, Robert and Kenneth Bickers. 1994. "Congressional Elections and the Pork Barrel." *The Journal of Politics* 56(2):377–399.
- Stein, Robert and Kenneth Bickers. 1997. *Perpetuating the Pork Barrel*. Policy Subsystems and American Democracy. Cambridge University Press.
- Stokes, Donald and Warren Miller. 1962. "Party Government and the Saliency of Congress." *Public Opinion Quarterly* 26(4):531–546.
- Stone, Walter J., L. Sandy Maisel and Cherie D. Maestas. 2004. "Quality Counts: Extending the Strategic Politician Model of Incumbent Deterrence." *American Journal of Political Science* 48(3):479–495.
- Taebel, Delbert. 1975. "The Effect of Ballot Position on Electoral Success." *American Journal of Political Science* 19(3):519–526.
- Upton, Graham and D. Brook. 1974. "The Importance of Positional Voting Bias in British Elections." *Political Studies* 22(2):178–190.
- Upton, Graham and D. Brook. 1975. "The Determination of the Optimum Position on a Ballot Paper." *Applied Statistics* 24(3):279–287.
- Wattenberg, Martin P. 1998. *The Decline of American Political Parties, 1952-1996*. Harvard University Press.
- Yiannakis, Diana. 1981. "The Grateful Electorate: Casework and Congressional Elections." *American Journal of Political Science* 25(3):568–580.

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